

UNIVERSITY PROGRAM MANAGEMENT INFORMATION SYSTEM

FY 1999

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Education Division/FE

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IMPORTANT NOTICE

This report is compiled primarily from information obtained from two internal NASA sources:

1. "CASE Report on Support of Colleges and Universities" (NASA Form 1356).
2. "Individual Procurement Action Report" (NASA Form 507).

Therefore, other sources should be used for completing Forms 507 and 1356.

Information in this publication is reviewed and revised for accuracy. Should any differences exist between publications, the latest edition should take precedence over earlier ones.

NASA's UNIVERSITY PROGRAM

ACTIVE PROJECTS

FISCAL YEAR 1999

Gary Gans, Project Manager

**National Aeronautics and Space Administration
Office of Human Resources and Education
Education Division/FE
Washington, DC 20546-0001**

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FOREWORD

As basic policy, NASA believes that colleges and universities should be encouraged to participate in the nation's space and aeronautics program to the maximum extent practicable. Indeed, universities are considered as partners with government and industry in the nation's aerospace program. NASA's objective is to have them bring their scientific, engineering, and social research competence to bear on aerospace problems and on the broader social, economic, and international implications of NASA's technical and scientific programs. It is expected that, in so doing, universities will strengthen both their research and their educational capabilities to contribute more effectively to the national well-being.

NASA field codes and certain Headquarters program offices provide funds for those activities in universities which contribute to the mission needs of that particular NASA element. Although NASA has no predetermined amount of money to devote to university activities, the effort funded each year is substantial. (See the bar chart on the next page). This annual report is one means of documenting the NASA-university relationship, frequently denoted, collectively, as NASA's University Program.

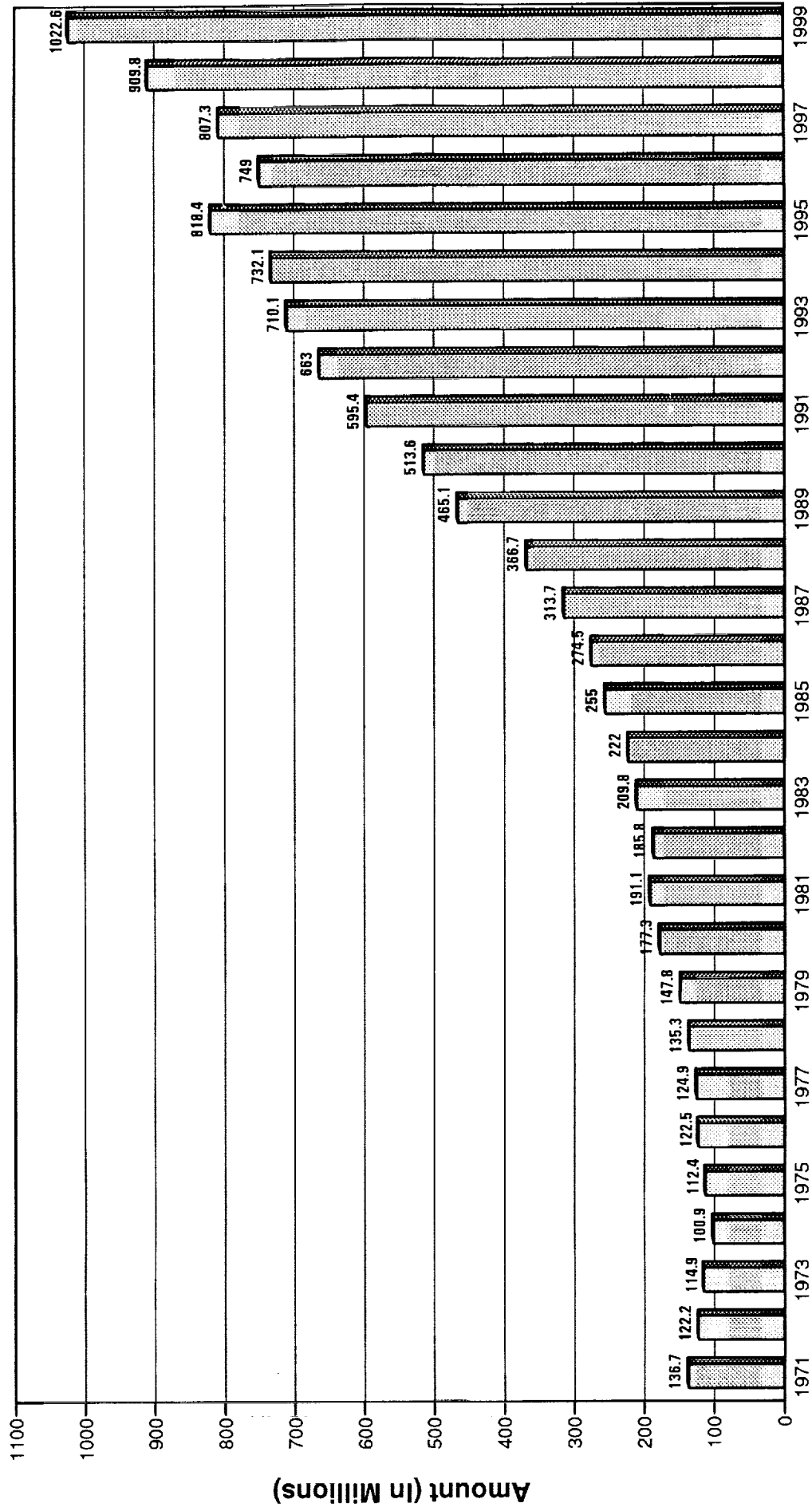
This report is consistent with agency accounting records, as the data is obtained from NASA's Financial and Contractual Status (FACS) System, operated by the Financial Management Division and the Procurement Office. However, in accordance with interagency agreements, the orientation differs from that required for financial or procurement purposes. Any apparent discrepancies between this report and other NASA procurement or financial reports stem from the selection criteria for the data.*

This report was prepared by the Education Division/FE, Office of Human Resources and Education, using a management information system which was modernized during FY 1993.

* Agreements which meet active criteria definition and have deobligations may result in agreements having negative obligations in the body of this publication.

NASA Obligations to Universities

Fiscal Years 1971-1999



Fiscal Years

NOTE: Excludes awards to California Institute of Technology for operation of the Jet Propulsion Laboratory.

FY 1971 includes \$15.0M in awards to Draper Lab.

FY 1972 includes \$5.7M in awards to Draper Lab.

FY 1973 includes \$5.2M in awards to Draper Lab.

FY 1974 Draper Lab status changed from "university" to "nonprofit."

**FIFTY EDUCATIONAL INSTITUTIONS
LISTED ACCORDING TO TOTAL OBLIGATIONS – FY 1999**

	INSTITUTION	OBLIGATIONS (THOUSANDS)	PERCENT
TOTALS*		1,022,566,283	100.00
1	Johns Hopkins University	110,116,350	10.77
2	University of Colorado – Boulder	61,154,791	5.98
3	Stanford University	58,386,239	5.71
4	University of Maryland – College Park	38,462,959	3.76
5	University of California – Berkeley	35,002,557	3.42
6	California Institute of Technology	31,734,837	3.10
7	University of California – San Diego	27,399,901	2.68
8	University of Arizona	26,547,062	2.60
9	Massachusetts Institute of Technology	24,583,898	2.40
10	University of Alabama – Huntsville	22,940,640	2.24
11	New Mexico State University – Las Cruces	14,771,940	1.44
12	Baylor College of Medicine	12,081,157	1.18
13	Loma Linda University	12,000,000	1.17
14	University of Alabama – Birmingham	11,925,840	1.17
15	University of Wisconsin – Madison	11,522,887	1.13
16	Mississippi State University	11,433,814	1.12
17	Columbia University	10,883,476	1.06
18	Carnegie-Mellon University	10,378,727	1.01
19	University of Hawaii – Honolulu	10,178,669	1.00
20	Pennsylvania State University – University Park	9,880,893	0.97
21	Wheeling Jesuit University	9,803,984	0.96
22	University of California – Los Angeles	9,313,732	0.91
23	University of Texas – Austin	9,022,935	0.88
24	University of Alaska – Fairbanks	8,966,080	0.88
25	University of New Hampshire – Durham	8,888,660	0.87
26	University of Washington	8,189,820	0.80
27	University of Michigan – Ann Arbor	7,938,492	0.78
28	University of California – Santa Barbara	7,726,651	0.76
29	University of Virginia	7,021,306	0.69
30	Harvard University	6,764,466	0.66
31	Oklahoma State University	6,640,137	0.65
32	Cornell University	6,637,592	0.65
33	University of New Mexico – Albuquerque	6,598,758	0.65
34	San Jose State University	6,551,322	0.64
35	Oregon State University	6,431,399	0.63
36	University of Maryland – Baltimore County	6,185,912	0.60
37	Washington University – St Louis	5,884,449	0.58
38	University of Houston – Clear Lake	5,807,297	0.57
39	University of Minnesota – Twin Cities	5,767,974	0.56
40	Georgia Institute of Technology	5,700,803	0.56
41	Montana State University	5,629,757	0.55
42	Hampton University	5,560,706	0.54
43	University of California – Irvine	5,356,462	0.52
44	Utah State University	5,219,556	0.51
45	University of Illinois – Urbana	5,215,764	0.51
46	University of Florida	5,162,220	0.50
47	Florida A&M University	4,796,714	0.47
48	University of Iowa	4,688,606	0.46
49	Case Western Reserve	4,516,302	0.44
50	University of North Dakota	4,324,068	0.42
	Other Colleges & Universities**	270,597,648	26.46

* Excludes awards to California Institute of Technology for operation of the Jet Propulsion Laboratory.

** Includes both foreign and domestic universities and colleges.

STATES AND U.S. TERRITORIES BY OBLIGATIONS
FISCAL YEAR 1999 (October 1, 1998 through September 30, 1999)

STATE		OBLIGATIONS (WHOLE DOLLARS)	PERCENT
TOTALS*		1,021,369,399	100.00
1	California.....	212,993,236	20.85
2	Maryland.....	161,643,981	15.83
3	Colorado.....	69,277,659	6.78
4	Texas.....	47,171,321	4.62
5	Alabama.....	46,059,868	4.51
6	Massachusetts.....	42,460,698	4.16
7	New York.....	35,212,679	3.45
8	Arizona.....	30,824,000	3.02
9	Virginia.....	26,216,671	2.57
10	Florida.....	25,954,641	2.54
11	Pennsylvania.....	24,268,254	2.38
12	New Mexico.....	23,635,357	2.31
13	Ohio.....	18,362,388	1.80
14	Georgia.....	16,517,384	1.62
15	Mississippi.....	13,837,128	1.35
16	Illinois.....	13,273,035	1.30
17	West Virginia.....	13,267,209	1.30
18	Wisconsin.....	12,583,029	1.23
19	Michigan.....	10,631,318	1.04
20	New Hampshire.....	10,588,916	1.04
21	Hawaii.....	10,159,401	0.99
22	New Jersey.....	9,941,291	0.97
23	Montana.....	9,808,002	0.96
24	North Carolina.....	9,538,337	0.93
25	District of Columbia.....	9,364,583	0.92
26	Washington.....	9,234,497	0.90
27	Alaska.....	8,966,080	0.88
28	Missouri.....	8,213,982	0.80
29	Oklahoma.....	7,871,177	0.77
30	Oregon.....	7,101,056	0.70
31	Tennessee.....	7,024,954	0.69
32	Utah.....	6,535,998	0.64
33	Iowa.....	6,345,951	0.62
34	Louisiana.....	5,955,008	0.58
35	Minnesota.....	5,868,727	0.57
36	Kansas.....	5,257,832	0.51
37	Connecticut.....	4,778,166	0.47
38	North Dakota.....	4,397,403	0.43
39	Rhode Island.....	4,176,860	0.41
40	Puerto Rico.....	3,978,774	0.39
41	Indiana.....	3,972,363	0.39
42	South Carolina.....	3,922,502	0.38
43	Kentucky.....	2,886,638	0.28
44	Nebraska.....	2,806,124	0.27
45	Delaware.....	2,528,160	0.25
46	Arkansas.....	1,405,702	0.14
47	Nevada.....	1,211,674	0.12
48	South Dakota.....	926,714	0.09
49	Idaho.....	710,718	0.07
50	Vermont.....	705,742	0.07
51	Wyoming.....	643,095	0.06
52	Maine.....	353,116	0.03

* Starting in FY 1993, Active Actions with deobligations will be reported in this chart.

RESEARCH AND DEVELOPMENT PERCENT CHANGE REPORT 1995-1999 *

FIELDS OF SCIENCE	FY 1999 (\$1000)	% CHANGE FY 98-99	FY 1998 (\$1000)	% CHANGE FY 97-98	FY 1997 (\$1,000)	% CHANGE FY 96-97	FY 1996 (\$1,000)	% CHANGE FY 95-96	FY 1995 (\$1,000)
ALL FIELDS TOTAL	895,887	13.99%	786,597	9.40%	719,008	8.20%	664,507	-4.34%	694,690
Physical Sciences, Total	402,015	17.10%	343,314	18.22%	290,413	-7.50%	313,954	13.29%	277,134
Astronomy	264,612	30.91%	202,138	46.99%	137,522	-17.15%	165,989	25.94%	131,800
Chemistry	8,216	-21.01%	10,401	-13.88%	12,078	280.55%	3,173	-45.57%	5,830
Physics	110,015	-1.65%	111,857	-7.42%	120,828	3.86%	116,336	13.86%	102,176
Physical Sciences, NEC **	19,172	1.34%	18,918	-5.34%	19,985	-29.77%	28,456	-23.77%	37,329
Mathematical & Computer Sciences, Total	29,092	30.24%	22,337	-8.97%	24,538	-12.78%	28,133	-6.77%	30,176
Mathematics	1,515	85.66%	816	-61.89%	2,141	234.01%	641	-30.10%	917
Computer Sciences	24,539	46.44%	16,757	-5.59%	17,750	-18.91%	21,889	-3.98%	22,796
Math. & Computer Sciences, NEC	3,038	-36.23%	4,764	2.52%	4,647	-17.06%	5,603	-13.29%	6,462
Environmental Sciences, Total	213,346	0.38%	212,543	8.82%	195,315	45.61%	134,136	-14.09%	156,133
Atmospheric Sciences	82,069	37.58%	59,650	-17.79%	72,557	36.73%	53,064	-14.17%	61,826
Geological Sciences	13,716	-32.29%	20,257	21.42%	16,684	-8.74%	18,281	-13.36%	21,101
Oceanography	8,492	-6.62%	9,094	-22.42%	11,722	7.70%	10,884	-18.24%	13,312
Environmental Sciences, NEC	109,069	-11.72%	123,542	30.94%	94,352	81.77%	51,907	-13.34%	59,894
Engineering Total	121,886	15.83%	105,231	-2.71%	108,159	10.07%	98,268	-28.84%	138,095
Aeronautical	33,600	-9.02%	36,930	-4.34%	38,605	6.48%	36,255	-40.54%	60,969
Astronautical	22,689	23.92%	18,310	0.84%	18,158	27.69%	14,220	0.56%	14,141
Chemical	1,717	-5.30%	1,813	3.36%	1,754	-2.72%	1,803	-39.29%	2,970
Civil	93	0.00%	0	-100.00%	321	73.51%	185	-85.02%	1,235
Electrical	7,979	-7.60%	8,635	-1.33%	8,751	-7.93%	9,505	25.41%	7,579
Mechanical	13,214	36.25%	9,698	-4.01%	10,103	-16.06%	12,036	12.31%	10,717
Metallurgy and Materials	11,858	9.16%	10,863	-18.73%	13,366	-0.46%	13,428	-31.97%	19,737
Engineering, NEC	30,736	61.92%	18,982	11.00%	17,101	57.82%	10,836	-47.77%	20,747
Life Sciences, Total	58,757	12.83%	52,076	-13.84%	60,444	-5.19%	63,755	8.80%	58,600
Biological, Total	20,881	33.51%	15,640	-20.85%	19,759	-48.71%	38,527	21.89%	31,608
Biological Sciences (Excluding Envir. Bio.)	18,732	37.76%	13,598	-24.88%	18,101	-48.18%	34,931	22.56%	28,501
Environmental Biology	1,296	-0.77%	1,306	46.74%	890	-58.97%	2,169	18.33%	1,833
Agricultural Sciences	853	15.90%	736	-4.17%	768	-46.18%	1,427	12.01%	1,274
Medical Sciences	6,085	-9.88%	6,752	16.63%	5,789	-28.13%	8,055	-16.97%	9,701
Life Sciences, NEC	31,791	7.10%	29,684	-14.94%	34,896	103.20%	17,173	-0.68%	17,291
Psychology Total	7,777	24.27%	6,258	9.29%	5,726	58.00%	3,624	-12.65%	4,149
Biological Aspects	698	2485.19%	27	0.00%	0	0.00%	0	-100.00%	85
Social Aspects	1,755	53.14%	1,146	-5.37%	1,211	132.44%	521	96.60%	265
Psychological Sciences, NEC	5,324	4.70%	5,085	12.62%	4,515	45.50%	3,103	-18.32%	3,799
Social Sciences, Total	342	14.38%	299	11.99%	267	97.78%	135	-67.31%	413
Economics	0	0.00%	0	-100.00%	13	0.00%	0	0.00%	0
History	17	0.00%	0	0.00%	10	0.00%	0	0.00%	0
Political Science	0	0.00%	0	0.00%	52	0.00%	0	0.00%	0
Social Sciences, NEC	325	8.70%	299	55.73%	192	42.22%	135	-67.31%	413
Other Sciences, NEC	62,672	40.71%	44,539	30.44%	34,146	51.75%	22,502	-24.97%	29,990

Table does not include awards to foreign universities or awards to California Institute of Technology for operation of the Jet Propulsion Laboratories.

* This report does not include other activities related to science and engineering, R&D plant and equipment, nor training grants. ** NEC means Not Elsewhere Classified.

* This chart does not include agreements with Fiscal Year obligations less than zero.

Prior year's data are reviewed for consistency, and when necessary, are revised. Prior year's data should be restricted to this chart.

FY1999 OBLIGATIONS BY FIELD OF SCIENCE OR ENGINEERING

			% OF ALL SCI. & ENGR.
PHYSICAL SCIENCES	Total	%	
11-ASTRONOMY	\$ 268,095,906	65.7%	
12-CHEMISTRY	\$ 8,263,015	2.0%	
13-PHYSICS	\$ 111,837,237	27.4%	
19-PHYS SCI-NEC*	\$ 19,991,113	4.9%	
Total	\$ 408,187,271	39.9%
MATH/COMPUTER	Total	%	
21-MATHEMATICS	\$ 2,264,322	6.9%	
22-COMPUTER SCI.	\$ 25,844,224	78.5%	
29-MATH/COMP NEC*	\$ 4,796,380	14.6%	
Total	\$ 32,904,926	3.2%
ENVIRONMENTAL SCIENCES	Total	%	
31-ATMOSPHERIC SCIENCES	\$ 85,422,676	38.1%	
32-GEOLOGICAL SCIENCES	\$ 14,644,338	6.5%	
33-OCEANOGRAPHY	\$ 9,358,727	4.2%	
39-ENVIRONMENTAL SCI*	\$ 114,699,806	51.2%	
Total	\$ 224,125,547	21.9%
ENGINEERING	Total	%	
41-AERONAUTICAL	\$ 47,352,348	33.9%	
42-ASTRONAUTICAL	\$ 23,190,871	16.6%	
43-CHEMICAL	\$ 1,792,743	1.3%	
45-ELECTRICAL	\$ 8,275,477	5.9%	
46-MECHANICAL	\$ 13,740,774	9.8%	
47-METALLURGY&MATERIALS	\$ 11,901,223	8.5%	
ENGINEERING NEC*	\$ 33,440,518	23.9%	
Total	\$ 139,693,954	13.7%
LIFE SCIENCES	Total	%	
51-BIOLOGICAL SCI	\$ 30,018,977	41.8%	
54-ENV. BIOLOGY	\$ 1,337,401	1.9%	
55-AGRIC. SCIENCES	\$ 936,417	1.3%	
56-MEDICAL SCIENCES	\$ 6,120,794	8.5%	
59-LIFE SCIENCES, NEC**	\$ 33,471,825	46.6%	
Total	\$ 71,885,414	7.0%
PSYCHOLOGY	Total	%	
61-BIOLOGICAL	\$ 740,264	9.4%	
62-SOCIAL ASPECTS	\$ 1,760,520	22.3%	
69-PSYCHOLOGY, NEC*	\$ 5,391,590	68.3%	
Total	\$ 7,892,374	0.8%
SOCIAL SCIENCES	Total	%	
71-ANTHROPOLOGY	\$ 22,000	0.5%	
76-SOCIOLOGY	\$ 32,944	0.7%	
79-SOCIAL SCIENCE, NEC*	\$ 4,645,227	98.8%	
Total	\$ 4,700,171	0.5%
OTHER DISCIPLINES**	Total	%	
99-ALL-DISCIPLINE(S)	\$ 133,176,626	100.0%	
Total	\$ 133,176,626	13.0%
GRAND TOTAL OF ALL SCIENCE & ENGINEERING	Total		
	\$ 1,022,566,283		100.0%

*NOT ELSEWHERE CLASSIFIED

**CANNOT BE CLASSIFIED WITHIN THE FIELDS

TABLE OF CONTENTS

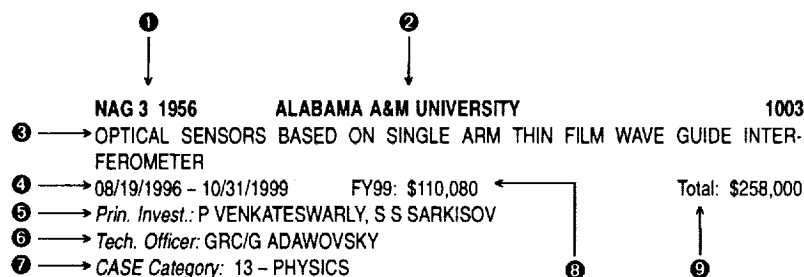
This report includes data on projects active during Fiscal Year 1999.

Alabama	1	Nebraska	343
Alaska	20	Nevada	345
Arizona	23	New Hampshire	346
Arkansas	42	New Jersey	355
California	43	New Mexico	363
Colorado	126	New York	369
Connecticut	151	North Carolina	397
Delaware	155	North Dakota	407
District of Columbia	158	Ohio	409
Florida	167	Oklahoma	430
Georgia	186	Oregon	431
Hawaii	198	Pennsylvania	436
Idaho	207	Rhode Island	455
Illinois	208	South Carolina	459
Indiana	223	South Dakota	463
Iowa	230	Tennessee	464
Kansas	236	Texas	471
Kentucky	240	Utah	500
Louisiana	242	Vermont	505
Maine	247	Virginia	506
Maryland	248	Washington	532
Massachusetts	280	West Virginia	543
Michigan	312	Wisconsin	545
Minnesota	325	Wyoming	555
Mississippi	331	Guam	556
Missouri	335	Commonwealth of Puerto Rico	556
Montana	341	Foreign Countries	558
Appendix/Cross Index by Field of Science and Engineering		561	

USER'S GUIDE

The University Program Report provides current information and related statistics for each grant/contract/cooperative agreement active during the report period. The following guidance is provided as an aid to the reader in readily locating material of interest and in optimizing the use of this document.

I. Typical Citation



KEY

1. Agreement number*
2. Institution name
3. Brief work description
4. Approximate period of performance
5. Principal investigator(s) at the educational institution
6. NASA Technical Officer(s) and organizational location
7. CASE Field of Science and Engineering code and name
8. Amount (if any) actually provided during the indicated fiscal year
9. Total amount actually provided during the indicated period of performance

* Uniquely identifies project. Prefixes denote type of instrument as follows:

Grants: NAG, NAGW, NGF, NGT, NGL, NGR, NSG

Cooperative Agreements: NCC, NCCW

Contracts: DEN, NAS, NASR, NASW, NSR

Space Act Agreements: NCA

II. NASA Installations

NASA installations are included in the citation as abbreviations (item 7). The following listing of installations will be useful to those desiring further information on specific projects.

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A full listing of the suffix letters and information on NASA's organizational structure may be found in the NASA Headquarters Telephone Directory. The directory is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

III. CASE Fields of Science and Engineering

The National Science Foundation (NSF) operates a government-wide system (CASE) for collecting and analyzing data on support to colleges and universities. Participating agencies report annually to NSF, which in turn issues Support to Universities, Colleges and Selected Nonprofit Institutions. The CASE fields, used in the extensive tabulations contained in that document, form the only consistent classification systems for government-sponsored research. The fields are listed in full in the Appendix.

IV. Cross-Index

The cross-indexed Appendix provides rapid access to all projects in a particular area of endeavor, as defined by the CASE fields. This listing is also easily used to determine the institutions and principal investigators conducting NASA projects in a field.

ALABAMA

NAG 2 1130 **ALABAMA A&M UNIVERSITY** **1000**
 IRON-ION INDUCED LOW DOSE MUTAGENESIS
 06/11/1997 - 06/30/2000 FY99: \$119,961 Total: \$279,922
Prin. Invest.: P G KALE
Tech. Officer: ARC/B J COLLINS, ARC/P X CALLAHAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 2 1160 **ALABAMA A&M UNIVERSITY** **1001**
 ADAPTATION OF LEAF SPECTROREFLECTOMETRY & NEURAL NETWORK
 IMAGE ANALYSIS APPROACHES FOR DETECTION & DISCRIMINATION OF ...
 09/07/1997 - 02/29/2000 FY99: \$0 Total: \$129,976
Prin. Invest.: C A BEYL, G C SHARMA
Tech. Officer: ARC/M H KLISS, ARC/D L BUBENHEIM
CASE Category: 55 - AGRICULTURE

NAG 2 1175 **ALABAMA A&M UNIVERSITY** **1002**
 NEURAL NETWORK ANALYSIS OF LEAF MULTISPECTRAL REFLECTANCE
 FOR DETECTION & DISCRIMINATION OF ...
 02/03/1998 - 03/31/2000 FY99: \$0 Total: \$99,812
Prin. Invest.: C A BEYL
Tech. Officer: ARC/M H KLISS, ARC/G S LEE
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 3 1956 **ALABAMA A&M UNIVERSITY** **1003**
 OPTICAL SENSORS BASED ON SINGLE ARM THIN FILM WAVE GUIDE INTERFEROMETER
 08/19/1996 - 10/31/1999 FY99: \$110,080 Total: \$258,000
Prin. Invest.: P VENKATESWARLY, S S SARKISOV
Tech. Officer: GRC/G ADAWOVSKY
CASE Category: 13 - PHYSICS

NAG 3 2123 **ALABAMA A&M UNIVERSITY** **1004**
 DEVELOPMENT OF A STABLE ELEVATED TEMPERATURE SILICON CARBIDE SENSOR
 02/19/1998 - 01/05/1999 FY99: \$0 Total: \$144,000
Prin. Invest.: D ILA
Tech. Officer: GRC/J LARKIN
CASE Category: 45 - ELECTRICAL ENGR

NAG 8 1125 **ALABAMA A&M UNIVERSITY** **1005**
 DEVELOPMENT OF UPCONVERSION MATERIALS, LASERS, AND OPTICAL SENSORS
 02/27/1995 - 12/31/1998 FY99: \$0 Total: \$393,575
Prin. Invest.: B R REDDY
Tech. Officer: MSFC/W J LOVE
CASE Category: 13 - PHYSICS

NAG 8 1172 **ALABAMA A&M UNIVERSITY** **1006**
 FOR RESEARCH "ELLIPTIC MEASUREMENT OF ORGANIC AND NON-LINEAR OPTICAL MATERIALS
 09/30/1996 - 09/29/1998 FY99: \$0 Total: \$83,726
Prin. Invest.: K J CHANG
Tech. Officer: MSFC/A C BEAM
CASE Category: 12 - CHEMISTRY

NAG 8 1192 **ALABAMA A&M UNIVERSITY** **1007**
 A COLLABORATIVE PROGRAM FOR ENHANCING STUDENTS WITH DISABILITIES
 09/13/1995 - 09/30/1999 FY99: \$0 Total: \$210,938
Prin. Invest.: D CRAWFORD
Tech. Officer: MSFC/S MILLER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1335 **ALABAMA A&M UNIVERSITY** **1008**
 R/S "AN INNOVATIVE APPROACH FOR VORTEX TUBE FLOW ANALYSIS AND APPLICATION IN FILM COOLING"
 03/26/1997 - 05/26/2000 FY99: \$100,000 Total: \$300,000
Prin. Invest.: K HE
Tech. Officer: MSFC/A CHOW
CASE Category: 13 - PHYSICS

NAG 8 1365 **ALABAMA A&M UNIVERSITY** **1009**
 R/S "AN UNCONVENTIONAL THREE-DIMENSIONAL COMPUTATION OF TRANSITIONAL AERODYNAMICS FOR RLV"
 05/28/1997 - 05/31/1999 FY99: \$160,121 Total: \$338,495
Prin. Invest.: G S KUAB
Tech. Officer: MSFC/L FOSTER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 8 1366 **ALABAMA A&M UNIVERSITY** **1010**
 R/S "CURRICULUM ADJUSTMENTS IN MATHEMATICS FOR SCIENCE & ENGINEERING PROGRAMS"
 05/28/1997 - 11/30/1999 FY99: \$185,115 Total: \$374,547
Prin. Invest.: E C TEMPLE
Tech. Officer: MSFC/A HENDERSON
CASE Category: 21 - MATHEMATICS

NAG 8 1390 **ALABAMA A&M UNIVERSITY** **1011**
 R/S "BULK AND THIN FILM ORGANIC NONLINEAR OPTICAL CRYSTALS FOR DEVICES AND MICROGRAVITY PROCESSING"
 07/23/1997 - 07/22/1999 FY99: \$0 Total: \$200,000
Prin. Invest.: M D AGGARWAL
Tech. Officer: MSFC/D FRAZIER, MSFC/W J LOVE
CASE Category: 13 - PHYSICS

NAG 8 1400 **ALABAMA A&M UNIVERSITY** **1012**
 EFFECT OF DOPANTS ON THE GROWTH & PROPERTIES OF MIXED ORGANIC CRYSTALS FOR NON-LINEAR OPTICAL APPS
 09/19/1997 - 12/31/1999 FY99: \$109,923 Total: \$209,745
Prin. Invest.: B PENN
Tech. Officer: MSFC/B PENN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1497 **ALABAMA A&M UNIVERSITY** **1013**
 COMPUTER MODEL OF THE TVC ELECTROMECHANICAL ACTUATOR
 06/10/1999 - 05/30/2002 FY99: \$81,574 Total: \$81,574
Prin. Invest.: A BOND
Tech. Officer: MSFC/J MONTENEGRO
CASE Category: 45 - ELECTRICAL ENGR

NAG 8 1498 **ALABAMA A&M UNIVERSITY** **1014**
 ELECTRO-OPTIC MODULATOR BASED ON ORGANIC PLANAR WAVEGUIDE INTEGRATED WITH PRISM COUPLER
 06/24/1999 - 05/30/2001 FY99: \$120,000 Total: \$120,000
Prin. Invest.: S SARKISOV
Tech. Officer: MSFC/B PENN
CASE Category: 13 - PHYSICS

ALABAMA

NASA'S UNIVERSITY PROGRAM

NAG 8 1541 **ALABAMA A&M UNIVERSITY** **1015**
CYTOGENETIC INVESTIGATIONS INTO RADIOSENSITIVITY
07/17/1998 - 07/16/1999 FY99: \$0 Total: \$98,858
Prin. Invest.: D KALE
Tech. Officer: MSFC/R C RICHMOND
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1560 **ALABAMA A&M UNIVERSITY** **1016**
MATHEMATICAL SAFETY ANALYSIS
09/30/1999 - 09/30/2001 FY99: \$99,956 Total: \$99,956
Prin. Invest.: M A ELSHAMY
Tech. Officer: MSFC/D O FRAZIER
CASE Category: 21 - MATHEMATICS

NAG 8 1614 **ALABAMA A&M UNIVERSITY** **1017**
RESEARCH ENTITLED: INVESTIGATION OF STRUCTURAL PROPERTIES OF
COMPOSITE SMART MATERIALS
09/09/1999 - 10/15/2002 FY99: \$98,634 Total: \$98,634
Prin. Invest.: A SHARMA
Tech. Officer: MSFC/G MYERS
CASE Category: 46 - MECHANICAL ENGR

NAG 8 1620 **ALABAMA A&M UNIVERSITY** **1018**
FASAT REACTION SPATIAL-TEMPORAL LIGHT MODULATORS FOR OPTICAL
RECOGNITION AND IMAGE PROCESSING
08/25/1999 - 08/25/2001 FY99: \$93,196 Total: \$93,196
Prin. Invest.: N KUKHTAREV, T KUHTEREVA
Tech. Officer: MSFC/B G PENN
CASE Category: 13 - PHYSICS

NAG 8 1623 **ALABAMA A&M UNIVERSITY** **1019**
INNOVATIVE EXPLORATION OF SEMIORGANIC NONLINEAR OPTICAL
MATERIALS FOR OPTICAL PROCESSING APPLIC.
09/24/1999 - 09/23/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: M D AGGARWAL
Tech. Officer: MSFC/B PENN
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 8 1624 **ALABAMA A&M UNIVERSITY** **1020**
INVESTIGATION OF MICROBIAL LIFE IN PLAR ICE AND PERMA FROST
08/13/1999 - 09/14/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: M G TADROS
Tech. Officer: MSFC/R HOOVER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1626 **ALABAMA A&M UNIVERSITY** **1021**
RESEARCH ENTITLED: "HYPERSONIC NON-EQUILIBRIUM FLOWS WITH
LOW REYNOLDS EFFECT"
09/16/1999 - 10/30/2001 FY99: \$99,282 Total: \$99,282
Prin. Invest.: G S LIAW
Tech. Officer: MSFC/L CHOU, MSFC/W J LOVE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 8 1642 **ALABAMA A&M UNIVERSITY** **1022**
HIGH SCHOOL/HIGH-TECH CAREER DEVELOPMENT PROGRAM IN MATH-
EMATICS, SCIENCE ENGINEERING, ADN TECH.
09/30/1999 - 09/29/2002 FY99: \$61,699 Total: \$61,699
Prin. Invest.: B CRAWFORD
Tech. Officer: MSFC/W LOVE
CASE Category: 21 - MATHEMATICS

NAG 8 1643 **ALABAMA A&M UNIVERSITY** **1023**
ENHANCEMENT OF STUDENTS IN SCIENCE, ENGINEERING, AND MATH-
EMATICS.
09/27/1999 - 09/26/2001 FY99: \$97,796 Total: \$97,796
Prin. Invest.: E TEMPLE
Tech. Officer: MSFC/J DOWDY
CASE Category: 21 - MATHEMATICS

NAG 9 1095 **ALABAMA A&M UNIVERSITY** **1024**
MICROBIAL VIABILITY AND BIOCIDES EFFICIENCY STUDIES FOR THE INTER
SPACE STATION
03/31/1999 - 03/31/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: M TADROS
Tech. Officer: JSC/D PIERSON, JSC/L AREMNDARIZ
CASE Category: 13 - PHYSICS

NAG10 245 **ALABAMA A&M UNIVERSITY** **1025**
MISSION PLANNING AND RISK MANAGEMENT
04/06/1998 - 04/08/2000 FY99: \$96,881 Total: \$195,121
Prin. Invest.: M ELSHAMY
Tech. Officer: KSC/R TILLEY
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 3 736 **ALABAMA A&M UNIVERSITY** **1026**
ALL OPTICAL MICRO MOTORS BASED ON MOVING GRATING IN PHOTO
SENSITIVE MEDIA
09/30/1999 - 09/30/2001 FY99: \$93,564 Total: \$93,564
Prin. Invest.: D CURLEY, NONE
Tech. Officer: GRC/G ADAMOVSKY
CASE Category: 13 - PHYSICS

NCC 8 140 **ALABAMA A&M UNIVERSITY** **1027**
R/S "CENTER FOR HYDROLOGY, SOIL CLIMATOLOGY AND REMOTE SENS-
ING (HSCARS)"
07/21/1997 - 06/30/2000 FY99: \$999,969 Total: \$2,944,969
Prin. Invest.: T L COLEMAN
Tech. Officer: MSFC/R ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCCW 84 **ALABAMA A&M UNIVERSITY** **1028**
CENTER FOR HYDROLOGY, SOIL CLIMATOLOGY AND REMOTE SENSING
08/09/1995 - 06/30/2000 FY99: \$0 Total: \$2,684,100
Prin. Invest.: T L COLEMAN
Tech. Officer: HQ/B L WHITE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 8 52811 **ALABAMA A&M UNIVERSITY** **1029**
RESEARCH PROGRAM
09/25/1995 - 05/31/1999 FY99: \$0 Total: \$82,500
Prin. Invest.: P B LAI
Tech. Officer: MSFC/D FRAZIER
CASE Category: 13 - PHYSICS

NGT 8 52818 **ALABAMA A&M UNIVERSITY** **1030**
GRAD STUDENT RESEACHER'S PROGRAM
07/24/1996 - 06/30/1999 FY99: \$0 Total: \$62,334
Prin. Invest.: D P PARKER
Tech. Officer: MSFC/J BILBRO
CASE Category: 21 - MATHEMATICS

NAG 3 1882 AUBURN UNIVERSITY 1031
 INVESTIGATION OF THERMAL STRESS CONVECTION IN MON ISOTHERMAL
 GASES UNDER MICROGRAVITY CONDITIONS
 05/21/1996 – 05/31/1999 FY99: -\$6,590 Total: \$93,410
Prin. Invest.: D W MACKOWSKI
Tech. Officer: GRC/B S SINGH
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1930 AUBURN UNIVERSITY 1032
 MINIATURE ELECTRIC PROPULSION UNITS FOR SMALLEST APPLICATIONS
 07/29/1996 – 12/31/1998 FY99: \$0 Total: \$149,996
Prin. Invest.: M F ROSE, S A MERRYMAN
Tech. Officer: GRC/J A HAMLEY, GRC/L R PINERO
CASE Category: 45 – ELECTRICAL ENGR

NAG 3 2120 AUBURN UNIVERSITY 1033
 TIAL JOINING SCIENCE AND TECHNOLOGY FOR ADVANCED AEROPRO-
 PULSION SYSTEM
 02/11/1998 – 01/13/2001 FY99: \$101,517 Total: \$157,938
Prin. Invest.: W F GALE, J W FERGUS
Tech. Officer: GRC/R D NOEBE, GRC/M V NATHAL
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 3 2142 AUBURN UNIVERSITY 1034
 HIGH PERFORMANCE NICKEL HYDROXIDE ELECTRODES UTILIZING COM-
 POSITE NICKEL FIBER ELECTRODE MICRO-STRUC
 04/02/1998 – 11/30/1999 FY99: \$0 Total: \$77,500
Prin. Invest.: B K TATARCHUK
Tech. Officer: GRC/D BRITTON
CASE Category: 43 – CHEMICAL ENGR

NAG 5 8081 AUBURN UNIVERSITY 1035
 MAGNETIC RECONNECTION AND PARTICLE PRECIPITATION ACROSS THE
 MAGNETOPAUSE
 01/21/1999 – 02/29/2000 FY99: \$54,960 Total: \$54,960
Prin. Invest.: D LIN
Tech. Officer: GSFC/D EVANS/5
CASE Category: 11 – ASTRONOMY

NAG 8 1562 AUBURN UNIVERSITY 1036
 FURTHER VERIFICATION OF THE RESIDUAL APPROACH
 09/10/1998 – 09/15/1999 FY99: \$13,549 Total: \$20,549
Prin. Invest.: M A CRUTCHINS
Tech. Officer: MSFC/F M BUGG, MSFC/P S BOOKOUT
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG 8 1563 AUBURN UNIVERSITY 1037
 TERRESTRIAL ENERGY STORAGE FOR SPS SYSTEMS
 09/15/1998 – 12/31/1998 FY99: -\$15,188 Total: \$9,748
Prin. Invest.: H W BRANDHORST, JR.
Tech. Officer: MSFC/J HOWELL
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1617 AUBURN UNIVERSITY 1038
 A SYSTEM STUDY FOR POWER WITHOUT WIRES UNDER NRA8- 23, SPACE
 SOLAR POWER
 07/06/1999 – 03/31/2000 FY99: \$286,039 Total: \$286,039
Prin. Invest.: H BRANDHORST, JR.
Tech. Officer: MSFC/J HOWELL
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1628 AUBURN UNIVERSITY 1039
 ADVANCED IMAGE RECOGNITION FOR CONTROL OF SPACE DOCKING
 09/08/1999 – 12/07/1999 FY99: \$24,917 Total: \$24,917
Prin. Invest.: T ROPPEL
Tech. Officer: MSFC/R DABNEY
CASE Category: 21 – MATHEMATICS

NAGW 1192 AUBURN UNIVERSITY 1040
 CENTER FOR COMMERCIAL DEVELOPMENT OF SPACE
 11/16/1987 – 10/31/1997 FY99: -\$6,807 Total: \$20,395,706
Prin. Invest.: R ASKEW
Tech. Officer: HQ/W A ORAN, HQ/R P WHITTEN
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG10 241 AUBURN UNIVERSITY 1041
 DESIGN OF THE KENNEDY SPACE CENTER USABILITY LABORATORY
 01/29/1998 – 07/01/1998 FY99: -\$1,251 Total: \$34,838
Prin. Invest.: L MOORE
Tech. Officer: KSC/D MILLER
CASE Category: 49 – ENGINEERING, OTHER

NAS 3 99200 AUBURN UNIVERSITY 1042
 EFFECTS OF HYPERVELOCITY IMPACTS ON HIGH VOLTAGE SOLAR
 ARRAYS
 09/17/1999 – 06/16/2000 FY99: \$98,787 Total: \$98,787
Prin. Invest.: H W BRANDHORST
Tech. Officer: GRC/P J GEORGE
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAS 8 98249 AUBURN UNIVERSITY 1043
 DEVELOPMENT AND PACKAGING OF SUPERCAPACITORS FOR LAUNCH
 VEHICLE APPLICATIONS
 09/10/1998 – 01/31/2000 FY99: \$403,219 Total: \$523,572
Prin. Invest.: S A MERRYMAN, Z CHEN
Tech. Officer: MSFC/D K HALL, MSFC/T M EDGE
CASE Category: 45 – ELECTRICAL ENGR

NCC 3 511 AUBURN UNIVERSITY 1044
 CENTER FOR THE COMMERCIAL DEVELOPMENT OF SPACE: SPACE
 POWER & ADVANCED ELECTRONICS
 11/01/1996 – 10/31/2001 FY99: \$1,158,000 Total: \$3,283,000
Prin. Invest.: D W BRANDHORST, JR., M F ROSE
Tech. Officer: GRC/J E DUDENHOEFER, GRC/R J SOVIE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 4 103 AUBURN UNIVERSITY 1045
 ROTATIONALLY ADAPTIVE FLUTTER TEST SURFACE NEW AWARD
 02/01/1996 – 03/27/1999 FY99: -\$206 Total: \$39,794
Prin. Invest.: D M BARRETT
Tech. Officer: DFRC/D F VORACEK
CASE Category: 41 – AERONAUTICAL ENGR

NCC 5 333 AUBURN UNIVERSITY 1046
 SOIL ORGANIC MATTER FLUXES IN AMAZONIAN FORESTS: NATURAL VS
 INTENSIVELY MANAGED SYSTEMS
 06/17/1998 – 12/31/1999 FY99: \$20,010 Total: \$102,618
Prin. Invest.: K MCNABB
Tech. Officer: GSFC/D DEERING
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

ALABAMA

NASA'S UNIVERSITY PROGRAM

NCC 8 69 AUBURN UNIVERSITY 1047
 AUBURN INDUSTRIAL EXTENSION SERVICE
 01/26/1995 - 07/31/1998 FY99: -\$32,366 Total: \$472,589
 Prin. Invest.: H BURDG
 Tech. Officer: MSFC/K FERNANDEZ, MSFC/B HAYES
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 128 AUBURN UNIVERSITY 1048
 FOR RESEARCH: "AUBURN COMMERCIAL SPACE CENTER FOR THE SOLIDIFICATION DESIGN/CASTNET PROGRAM"
 01/28/1997 - 10/31/1999 FY99: \$1,277,000 Total: \$2,747,000
 Prin. Invest.: J R WATKINS
 Tech. Officer: MSFC/J R WATKINS
 CASE Category: 47 - METAL & MATERIALS ENGR

NCC 8 151 AUBURN UNIVERSITY 1049
 GLOBAL CHANGE R/S EDUCATION & OUTREACH RELATED TO THE EARTH'S SURFACE RESOURCES AND HYDROLOGIC CYCLE
 06/30/1998 - 03/31/2003 FY99: \$118,816 Total: \$168,816
 Prin. Invest.: U HATCH
 Tech. Officer: MSFC/J R ARNOLD
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 1 52120 AUBURN UNIVERSITY 1050
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP) URM&D FOCUS
 06/29/1995 - 06/30/1998 FY99: -\$1 Total: \$55,000
 Prin. Invest.: G T FLOWERS, M A LAWEN
 Tech. Officer: LARC/R G KVATERNIK
 CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52205 AUBURN UNIVERSITY 1051
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/04/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: M L WALLER, T H SHUMPERT, S M RAO
 Tech. Officer: LARC/F B BECK, LARC/M C BAILEY
 CASE Category: 45 - ELECTRICAL ENGR

NGT 8 52826 AUBURN UNIVERSITY 1052
 GRAD STUDENT RESEARCHERS PROGRAM FOR VALETA C. CHANCEY
 09/20/1996 - 09/16/1999 FY99: \$0 Total: \$44,000
 Prin. Invest.: V C CHANEY
 Tech. Officer: MSFC/S RYAN
 CASE Category: 46 - MECHANICAL ENGR

NGT 8 52851 AUBURN UNIVERSITY 1053
 ADVANCED METHOD FOR VIBRATION ANALYSIS OF HIGH SPEED ROTOR SYSTEMS
 07/21/1998 - 08/14/2001 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: G T FLOWERS
 Tech. Officer: MSFC/J F DOWDY
 CASE Category: 46 - MECHANICAL ENGR

NGT 8 52870 AUBURN UNIVERSITY 1054
 OPTIMAL APPLICATION OF COMBUSTION TEST DATA TO FLAMABILITY ASSESSMENT IN GASEOUS OXYGEN
 07/27/1998 - 08/14/2001 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: P D JONES
 Tech. Officer: MSFC/J F DOWDY
 CASE Category: 46 - MECHANICAL ENGR

NAG 8 1280 BIRMINGHAM SOUTHERN COLLEGE 1055
 JOVE RESEARCH
 01/21/1997 - 08/31/2000 FY99: \$0 Total: \$25,000
 Prin. Invest.: K B BACHMANN
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
 CASE Category: 13 - PHYSICS

NCC 8 118 JOHN C. CALHOUN STATE COMMUNITY COLLEGE 1056
 RESEARCH "WORK EXPERIENCE MENTORING PROGRAM"
 09/30/1996 - 09/30/1998 FY99: \$0 Total: \$25,000
 Prin. Invest.: R CARPENTER
 Tech. Officer: MSFC/S PAYNE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1238 MILES COLLEGE 1057
 JOINT VENTURE IN SPACE SERVICE (JOVE)
 10/31/1996 - 05/31/1999 FY99: -\$17,000 Total: \$38,000
 Prin. Invest.: D B BHARWANI
 Tech. Officer: MSFC/E COTHMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1300 OAKWOOD COLLEGE 1058
 R/S THE DEVELOPMENT, ASSESSMENT, VALIDATION & ENHANCEMENT (DAVE) OF VIRTUAL REALITY FOR HUMAN ANAT
 07/09/1996 - 05/31/1998 FY99: \$0 Total: \$78,577
 Prin. Invest.: K BENN-MARSHALL
 Tech. Officer: MSFC/J HALE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1600 OAKWOOD COLLEGE 1059
 R/S THE DEVELOPMENT, ASSESSMENT, VALIDATION AND ENHANCEMENT (DAVE) OF VIRTUAL REALITY FOR HUMAN...
 01/22/1999 - 01/20/2000 FY99: \$93,168 Total: \$93,168
 Prin. Invest.: K BENN-MARSHALL
 Tech. Officer: MSFC/G HAMILTON
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4588 STILLMAN COLLEGE 1060
 PRECOLLEGE AWARDS FOR EXCELLENCE IN MATHEMATICS, S AND TECHNOLOGY
 07/10/1997 - 09/30/1999 FY99: \$0 Total: \$98,766
 Prin. Invest.: J CHRISTIAN
 Tech. Officer: GSFC/M STOUTSENBERGHER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4486 STILLMAN COLLEGE 1061
 STILLMAN COLLEGE'S PRECOLLEGE AWARDS FOR EXCELLENCE IN MATH, SCIENCE, ENGINEER, AND TECH.
 05/04/1995 - 04/30/1998 FY99: -\$50,882 Total: \$121,934
 Prin. Invest.: J WASHINGTON
 Tech. Officer: HQ/B L WHITE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4578 TRENHOLM STATE TECHNICAL COLLEGE 1062
 HIGH SCHOOL STUDENT SCIENCE ENRICHMENT PROGRAM
 05/13/1997 - 09/30/1999 FY99: \$0 Total: \$375,827
 Prin. Invest.: E ROSS
 Tech. Officer: GSFC/L RANDOLPH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NASA'S UNIVERSITY PROGRAM

ALABAMA

NAG 8 1610 TRENHOLM STATE TECHNICAL COLLEGE 1063
 NASA HIGH SCHOOL SCIENCE ENRICHMENT PROGRAM (HSSEP)
 06/07/1999 - 06/06/2002 FY99: \$100,000 Total: \$100,000
 Prin. Invest.: C THOMPSON
 Tech. Officer: MSFC/W LOVE, MSFC/A C BEAM
 CASE Category: 21 - MATHEMATICS

NAG 8 1204 TROY STATE UNIVERSITY 1064
 JOVE
 09/22/1995 - 08/31/1999 FY99: \$0 Total: \$87,000
 Prin. Invest.: D J BATEMAN, D
 Tech. Officer: MSFC/D SIX
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1865 TUSKEGEE UNIVERSITY 1065
 IDENTIFICATION OF SURFACE AND NEAR SURFACE DEFECTS AND DAMAGE EVALUATION BY LASER SPECKLE
 09/10/1996 - 09/09/1999 FY99: \$73,920 Total: \$292,635
 Prin. Invest.: J N BHUYAN
 Tech. Officer: LARC/R ROGOSKI
 CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1977 TUSKEGEE UNIVERSITY 1066
 CHARACTERIZATION OF FLOW BEHIND THE FAN OF A TURBO FAN ENGINE
 10/30/1996 - 10/28/1999 FY99: \$38,272 Total: \$171,083
 Prin. Invest.: D SREE
 Tech. Officer: GRC/G G PODBOY
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2037 TUSKEGEE UNIVERSITY 1067
 SPUTTERING EROSION IN THE ION THRUSTER
 04/22/1997 - 11/30/1999 FY99: \$24,917 Total: \$89,901
 Prin. Invest.: P K RAY
 Tech. Officer: GRC/M MANTENEIKS
 CASE Category: 13 - PHYSICS

NAG 3 2127 TUSKEGEE UNIVERSITY 1068
 STUDY OF ELECTRICAL CONTACTS AND DEVICES IN ADVANCED SEMICONDUCTORS
 02/13/1998 - 01/19/2001 FY99: \$99,842 Total: \$199,775
 Prin. Invest.: K K DAS
 Tech. Officer: GRC/S A ALTEROVITZ
 CASE Category: 45 - ELECTRICAL ENGR

NAG 4 133 TUSKEGEE UNIVERSITY 1069
 TEAM TRAINING AND RETENTION OF SKILLS ACQUIRED IN ABOVE REAL TIME TRAINING ON A FLIGHT SIMULATOR
 06/25/1997 - 10/30/1999 FY99: \$0 Total: \$95,415
 Prin. Invest.: S F ALI
 Tech. Officer: DFRC/K NORLIN
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 4 169 TUSKEGEE UNIVERSITY 1070
 EFFECTS OF ABOVE REAL TIME TRAINING
 05/17/1999 - 11/17/1999 FY99: \$68,711 Total: \$68,711
 Prin. Invest.: S FIRASAT ALI
 Tech. Officer: DFRC/K A NORLIN, DFRC/R BINKLEY
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 8 1246 TUSKEGEE UNIVERSITY 1071
 R/S ATOMIZATION IN IMPINGING-JET INJECTORS OF LIQUID-PROPELLANT ROCKET ENGINES
 10/31/1996 - 11/01/1999 FY99: \$87,941 Total: \$252,147
 Prin. Invest.: D A IBRAHIM
 Tech. Officer: MSFC/H TRINH
 CASE Category: 46 - MECHANICAL ENGR

NAG 9 1094 TUSKEGEE UNIVERSITY 1072
 1999 NASA TUSKEGEE UNIV INTERSHIP PROGRAM
 05/14/1999 - 12/30/1999 FY99: \$25,000 Total: \$25,000
 Prin. Invest.: C K BONSI
 Tech. Officer: JSC/M DONALD
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG10 125 TUSKEGEE UNIVERSITY 1073
 RESEARCH AND DEVELOPMENT OF MATERIALS PROTECTIVE CLOTHING
 07/12/1993 - 09/01/1998 FY99: -\$3,736 Total: \$196,263
 Prin. Invest.: N VAHDAT
 Tech. Officer: KSC/K THOMPSON
 CASE Category: 12 - CHEMISTRY

NAG10 166 TUSKEGEE UNIVERSITY 1074
 DEVELOPMENT OF A SMALL PORTABLE MASS SPECTROMETER
 06/14/1995 - 09/30/1998 FY99: -\$4,131 Total: \$279,435
 Prin. Invest.: N VAHDAT
 Tech. Officer: KSC/J D COLLINS
 CASE Category: 41 - AERONAUTICAL ENGR

NAG10 167 TUSKEGEE UNIVERSITY 1075
 RESEARCH & DEVELOPMENT OF MATERIALS & COMPONENTS FOR PROTECTIVE CLOTHING
 06/19/1995 - 07/20/1998 FY99: \$0 Total: \$109,491
 Prin. Invest.: N VAHDAT
 Tech. Officer: KSC/P FAUGHNAN
 CASE Category: 43 - CHEMICAL ENGR

NAG10 168 TUSKEGEE UNIVERSITY 1076
 FRACTURE MORPHOLOGY OF SELECTIVE POLYMER SYSTEMS UNDER MONOTONIC & FATIGUE LOADING
 06/05/1995 - 12/31/1999 FY99: \$0 Total: \$285,284
 Prin. Invest.: H A AGLAN
 Tech. Officer: KSC/P FAUGHNAN
 CASE Category: 41 - AERONAUTICAL ENGR

NAG10 176 TUSKEGEE UNIVERSITY 1077
 A COMETABOLIC BIOTRANSFORMATION MODEL FOR A MIXTURE OF HYDRAZINE FUELS AND CITRIC ACID
 07/19/1995 - 07/31/1998 FY99: -\$3,193 Total: \$253,512
 Prin. Invest.: K HAILE
 Tech. Officer: KSC/B DELIWALA
 CASE Category: 12 - CHEMISTRY

NAG10 209 TUSKEGEE UNIVERSITY 1078
 SWEETPOTATO STEM CUTTING DATABASE IN PREPARATION FOR FLIGHT
 09/01/1997 - 08/31/2000 FY99: \$88,000 Total: \$295,346
 Prin. Invest.: D MARTLEY
 Tech. Officer: KSC/R WHEELER
 CASE Category: 59 - LIFE SCIENCE, OTHER

ALABAMA

NASA'S UNIVERSITY PROGRAM

NAG10 253 **TUSKEGEE UNIVERSITY** **1079**
 EVALUATION OF FIRE EXTINGUISHING HALON COMPOUNDS
 02/01/1999 - 01/31/2000 FY99: \$97,620 Total: \$97,620
Prin. Invest.: N VAHDAT
Tech. Officer: KSC/M COLLINS
CASE Category: 43 - CHEMICAL ENGR

NAG10 256 **TUSKEGEE UNIVERSITY** **1080**
 TUSKEGEE UNIV GATEWAY ACHIEVEMENT PROGRAM
 03/01/1999 - 03/01/2000 FY99: \$85,653 Total: \$85,653
Prin. Invest.: C DAVIS
Tech. Officer: KSC/R MCKINNEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 270 **TUSKEGEE UNIVERSITY** **1081**
 STARSAT 12000 TESTING TACTICS AND STRATEGIES PILOT PROGRAM
 09/28/1999 - 09/30/2000 FY99: \$98,323 Total: \$98,323
Prin. Invest.: D K BLACKWELL
Tech. Officer: KSC/R J MCKINNEY
CASE Category: 79 - SOCIAL SCIENCE, OTHER

NAG13 33 **TUSKEGEE UNIVERSITY** **1082**
 A STUDY OF THE FLUID MECHANICS OF REACTING FLOWS IN SELECTED
 AEROSPACE PROPULSION DEVICES
 02/28/1995 - 02/27/1998 FY99: \$11,830 Total: \$165,498
Prin. Invest.: E SHEPPARD
Tech. Officer: SSC/G PITALO
CASE Category: 41 - AERONAUTICAL ENGR

NAG13 50 **TUSKEGEE UNIVERSITY** **1083**
 NASA UNIVERSITY PARTNERSHIP AWARD WITH MINORITY INSTITUTIONS
 PROGRAM
 06/19/1997 - 12/31/1999 FY99: \$61,444 Total: \$367,564
Prin. Invest.: E SHEPPARD
Tech. Officer: SSC/B ST. CYR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 3 591 **TUSKEGEE UNIVERSITY** **1084**
 HIGH TEMPERATURE FATIGUE AND CREEP BEHAVIOR OF CERA MIC
 MATRIX COMPOSITES FOR EXHAUST NOZZLE APPLICAT
 03/11/1998 - 12/23/2000 FY99: \$120,782 Total: \$239,864
Prin. Invest.: A HAQUE, H MAHFUZ, U VAIDA
Tech. Officer: GRC/M J VERILLE, GRC/J E GRADY
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 726 **TUSKEGEE UNIVERSITY** **1085**
 STUDY OF DESIGN PRINCIPLES AND SPARE PLASMA INTERACTION ON
 MODULAR HIGH VOLTAGE POWER DISTRIBUTION
 08/05/1999 - 07/31/2000 FY99: \$78,875 Total: \$78,875
Prin. Invest.: C V DORESWAMY
Tech. Officer: GRC/D C FERGUSON
CASE Category: 45 - ELECTRICAL ENGR

NCC 5 346 **TUSKEGEE UNIVERSITY** **1086**
 CENTER FOR LIDAR AND ATMOSPHERIC SCIENCES STUDENTS
 07/01/1998 - 07/31/2003 FY99: \$488,839 Total: \$988,678
Prin. Invest.: N O EGIEBOR
Tech. Officer: HQ/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 9 51 **TUSKEGEE UNIVERSITY** **1087**
 CENTER FOR FOOD & ENVIRON SYS ... (CFESH)
 07/31/1997 - 12/31/1999 FY99: \$1,250,000 Total: \$3,000,000
Prin. Invest.: W A HILL
Tech. Officer: JSC/D BARTA
CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NGT 5 90033 **TUSKEGEE UNIVERSITY** **1088**
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/20/1997 - 08/14/1998 FY99: \$0 Total: \$24,000
Prin. Invest.: E J SHEPPARD
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NGT 9 37 **TUSKEGEE UNIVERSITY** **1089**
 REFINEMENT OF HYDROPONIC GROWING SYSTEMS
 08/17/1998 - 05/24/1999 FY99: \$0 Total: \$24,736
Prin. Invest.: C BONSI, J H HILL
Tech. Officer: JSC/L M ARMENDARIZ
CASE Category: 55 - AGRICULTURE

NAG 2 1348 **UNIVERSITY OF ALABAMA - BIRMINGHAM** **1090**
 MOLECULAR BASIS OF MECHANOSIGNAL TRANSDUCTION IN VASCULAR
 ENDOTHELIAL CELLS
 07/23/1999 - 12/31/1999 FY99: \$104,180 Total: \$104,180
Prin. Invest.: V D DARLEY-USMAR
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4550 **UNIVERSITY OF ALABAMA - BIRMINGHAM** **1091**
 A LASER RAMAN SPECTROMETER SYSTEM SUITABLE FOR INC SPACE-
 CRAFT
 05/08/1997 - 04/30/2000 FY99: \$46,902 Total: \$197,215
Prin. Invest.: D J WDWIAK
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4584 **UNIVERSITY OF ALABAMA - BIRMINGHAM** **1092**
 MOSSBAUER SPECTROSCOPY AS A TOOL FOR MARTIAN EXOPRO-
 SPECTING
 05/20/1997 - 01/31/2000 FY99: \$0 Total: \$80,000
Prin. Invest.: D J WDWIAK
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4853 **UNIVERSITY OF ALABAMA - BIRMINGHAM** **1093**
 FORMATION OF THE HYDROCARBONS OF CARBONACEOUS CHON
 07/23/1997 - 03/31/2001 FY99: \$37,800 Total: \$103,412
Prin. Invest.: D WDWIAK
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6287 **UNIVERSITY OF ALABAMA - BIRMINGHAM** **1094**
 MICROBIAL MONITORING BASED ON QUANTITATIVE PCR
 08/29/1997 - 06/30/1998 FY99: \$116,050 Total: \$73,694
Prin. Invest.: D CASSELL
Tech. Officer: GSFC/G FOGLEMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6815 UNIVERSITY OF ALABAMA - BIRMINGHAM 1095
 INVESTIGATION OF THE CONTRIBUTION OF POLYCYCLIC AROMATIC
 HYDROCARBONS TO INTERSTELLAR ULTRAVIOLET E
 01/05/1998 - 12/31/1999 FY99: \$26,000 Total: \$52,000
Prin. Invest.: T W DOWIAK
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 6973 UNIVERSITY OF ALABAMA - BIRMINGHAM 1096
 FORMATION OF THE HYDROCARBONS OF CARBONACEOUS CHONDRITES
 03/13/1998 - 02/28/2001 FY99: \$0 Total: \$0
Prin. Invest.: T J W DOWIAK
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7079 UNIVERSITY OF ALABAMA - BIRMINGHAM 1097
 REPEATING IMPACT TOOL FOR IN-SITU GEOLOGY INVESTIGATIONS
 03/06/1998 - 03/31/2000 FY99: \$78,936 Total: \$109,902
Prin. Invest.: T J W DOWIAK
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 8786 UNIVERSITY OF ALABAMA - BIRMINGHAM 1098
 DEVELOPMENT OF HIGH AFFINITY SENSORS FOR BIOLOGICAL PATH-
 OGENS
 09/02/1999 - 08/31/2001 FY99: \$800,000 Total: \$800,000
Prin. Invest.: L DELUCAS
Tech. Officer: GSFC/E PAYLOR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8819 UNIVERSITY OF ALABAMA - BIRMINGHAM 1099
 THE IR EMITTING AROMATIC COMPONENT OF THE INTERSTELLAR AND
 CIRCUMSTELLAR MEDIUMS
 09/07/1999 - 07/31/2000 FY99: \$38,564 Total: \$38,564
Prin. Invest.: T W DOWIAK
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 8 1146 UNIVERSITY OF ALABAMA - BIRMINGHAM 1100
 RESEARCH ON DEVELOPMENT OF ROBOTIC TECHNIQUES
 09/13/1995 - 09/12/1999 FY99: \$206,262 Total: \$834,290
Prin. Invest.: L J DELUCAS
Tech. Officer: GSFC/B GUYNES
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1162 UNIVERSITY OF ALABAMA - BIRMINGHAM 1101
 INVESTIGATION OF MACROMOLECULAR TRANSPORT
 09/01/1995 - 08/31/1999 FY99: \$134,034 Total: \$525,014
Prin. Invest.: L J DELUCAS
Tech. Officer: MSFC/B GUYNES, MSFC/D C CARTER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1228 UNIVERSITY OF ALABAMA - BIRMINGHAM 1102
 THE EFFECT OF CONVECTION ON MORPHOLOGICAL STABILITY
 05/01/1996 - 04/30/2000 FY99: \$91,666 Total: \$291,666
Prin. Invest.: J B ANDREWS
Tech. Officer: MSFC/P DOTY, MSFC/R POWER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 1050 UNIVERSITY OF ALABAMA - BIRMINGHAM 1103
 DEVELOPMENT OF SAMPLE COLLECTION AND PREPARATION TECHNOLOGY
 08/06/1998 - 08/11/1999 FY99: -\$84,000 Total: \$0
Prin. Invest.: J I GLASS
Tech. Officer: KSCJ
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAGW 813 UNIVERSITY OF ALABAMA - BIRMINGHAM 1104
 MICRO MOLECULAR CRYSTALLOGRAPHY IN SPACE
 09/15/1985 - 07/01/1998 FY99: \$0 Total: \$25,815,856
Prin. Invest.: C E BUGG, K M PRUITT
Tech. Officer: HQ/A VILLAMIL, HQ/A VILLAMIL
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 8 39717 UNIVERSITY OF ALABAMA - BIRMINGHAM 1105
 RESEARCH STUDY
 01/29/1993 - 10/31/1998 FY99: \$0 Total: \$1,105,353
Prin. Invest.: J B ANDREWS
Tech. Officer: MSFC/T DELOACH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 8 40189 UNIVERSITY OF ALABAMA - BIRMINGHAM 1106
 PROTEIN CRYSTAL GROWTH IN MICROGRAVITY
 04/01/1994 - 12/31/2003 FY99: \$3,781,948 Total: \$16,193,925
Prin. Invest.: L J DELUCAS
Tech. Officer: MSFC/D K COLLINS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAS 8 99059 UNIVERSITY OF ALABAMA - BIRMINGHAM 1107
 R/S COUPLED GROWTH IN HYPERMONOTECTICS
 01/22/1999 - 03/31/2003 FY99: \$314,366 Total: \$314,366
Prin. Invest.: J B ANDREWS
Tech. Officer: MSFC/R KING
CASE Category: 13 - PHYSICS

NCC 8 126 UNIVERSITY OF ALABAMA - BIRMINGHAM 1108
 FOR RES: "CONTINUATION OF SUPPORT FOR COMMERCIAL SPACE CTR,
 CTR FOR MACROMOLECULAR CRYSTALLOGRAPHY"
 01/27/1997 - 10/31/1999 FY99: \$6,308,805 Total: \$20,891,158
Prin. Invest.: L DELUCAS
Tech. Officer: MSFC/S LAMBIH
CASE Category: 59 - LIFESCIENCE, OTHER

NCC 8 172 UNIVERSITY OF ALABAMA - BIRMINGHAM 1109
 "MICROGRAVITY CRYSTAL GROWTH STUDIES OF MEDICALLY RELEVANT
 MACROMOLECULES"
 02/11/1999 - 09/30/2002 FY99: \$134,427 Total: \$134,427
Prin. Invest.: L J DELUCAS
Tech. Officer: MSFC/D COLLINS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 8 52845 UNIVERSITY OF ALABAMA - BIRMINGHAM 1110
 GRADUATE STUDENT RESEARCH PROGRAM FELLOWSHIP
 09/12/1997 - 09/14/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: C M LAWSON
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 13 - PHYSICS

NAG 1 1842 UNIVERSITY OF ALABAMA - HUNTSVILLE 1111
 REDUCING THE STATION-TO-STATION VARIABILITY OF UMKEHR OZONE
 TRENDS USING SAGE MEASUREMENTS
 06/20/1996 - 06/30/2000 FY99: \$38,928 Total: \$238,928
Prin. Invest.: M J NEWCHURCH
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1898 UNIVERSITY OF ALABAMA - HUNTSVILLE 1112
 EVALUATING THE INFORMATION CONTENT OF NEWLY RETRIEVED SAGE II
 NO2 MEASUREMENTS IN THE LOWER
 02/05/1997 - 02/04/2000 FY99: \$58,996 Total: \$189,507
Prin. Invest.: M J NEWCHURCH
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1955 UNIVERSITY OF ALABAMA - HUNTSVILLE 1113
 CLOUDS AND THE EARTH'S RADIANT ENERGY SYSTEM SCIENTIFIC INVE-
 STIGATION
 08/25/1997 - 10/31/1998 FY99: \$0 Total: \$347,809
Prin. Invest.: R WELCH
Tech. Officer: LARC/B A WIELICKI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2026 UNIVERSITY OF ALABAMA - HUNTSVILLE 1114
 AEROSOL RETRIEVALS FROM HIGH RESOLUTION BROADBAND ATMOS-
 SOLAR OCCULTATION SPECTRA
 03/19/1998 - 12/31/2000 FY99: \$67,000 Total: \$132,000
Prin. Invest.: M J NEWCHURCH
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2204 UNIVERSITY OF ALABAMA - HUNTSVILLE 1115
 OZONE TRENDS IN SAGE, HALOE, TOMS, UMKEHR, AND LIDAR MEA-
 SUREMENTS (NRA-98-OES-04)
 06/11/1999 - 06/30/2002 FY99: \$85,000 Total: \$85,000
Prin. Invest.: M J NEWCHURCH
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 985 UNIVERSITY OF ALABAMA - HUNTSVILLE 1116
 MECHANISMS OF GRAVITY SENSING AND RESPONSE IN HEMA TOPOIETIC
 CELLS
 06/21/1995 - 12/31/1999 FY99: \$0 Total: \$270,883
Prin. Invest.: M L LEWIS
Tech. Officer: ARC/C M WINGET, ARC/C G JAHNS
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 2 6037 UNIVERSITY OF ALABAMA - HUNTSVILLE 1117
 WORKSHOP ON ISSUES IN THE APPLICATION OF DATA MINING TO SCIENTIFIC DATA
 09/23/1999 - 12/31/1999 FY99: \$6,000 Total: \$6,000
Prin. Invest.: S J GRAVES
Tech. Officer: ARC/J P ZIEBARTH
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2285 UNIVERSITY OF ALABAMA - HUNTSVILLE 1118
 STUDY OF THE STRUCTURE COMPOSITION AND ELECTRICAL PROPERTIES
 OF SILICON CARBIDE EPITAXIAL FILMS FOR
 08/04/1999 - 06/30/2002 FY99: \$30,909 Total: \$30,909
Prin. Invest.: D A GEORGE
Tech. Officer: GRC/D J LARKIN
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 3027 UNIVERSITY OF ALABAMA - HUNTSVILLE 1119
 ON THE ORIGIN AND EVOLUTION ON STELLAR CHROMOSPHERES,
 CORONAE AND WINDS
 10/02/1995 - 05/31/1999 FY99: \$0 Total: \$310,064
Prin. Invest.: Z E MUSIELAK
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3164 UNIVERSITY OF ALABAMA - HUNTSVILLE 1120
 THE DIFFUSE EUV AND X-RAY BACKGROUND AS A PROBE OF THE
 INTERSTELLAR MEDIUM
 02/02/1996 - 02/14/1999 FY99: \$0 Total: \$78,200
Prin. Invest.: R LIEU
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3269 UNIVERSITY OF ALABAMA - HUNTSVILLE 1121
 LUMINOSITY DEPENDENCE OF THE X-RAY SPECTRA AND VARIABILITY; A
 SEARCH FOR ORBITAL DOPPLER
 07/02/1996 - 12/31/1998 FY99: \$0 Total: \$28,100
Prin. Invest.: J VAN PARADIS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3271 UNIVERSITY OF ALABAMA - HUNTSVILLE 1122
 STUDY OF VERY RAPID PHENOMENA IN SCO X-1
 07/01/1996 - 12/31/1998 FY99: \$0 Total: \$5,000
Prin. Invest.: J PARADUS
Tech. Officer: GSFC/J SWANK
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3402 UNIVERSITY OF ALABAMA - HUNTSVILLE 1123
 VOYAGER LYMAN-ALPHA AND CONTINUUM OBSERVATIONS OF
 10/15/1996 - 10/14/1998 FY99: -\$11 Total: \$3,689
Prin. Invest.: W C KEEL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3551 UNIVERSITY OF ALABAMA - HUNTSVILLE 1124
 THE ROLE OF TURBULENCE IN HELIOSPHERIC PLASMAS
 12/09/1996 - 05/31/1999 FY99: \$0 Total: \$74,000
Prin. Invest.: J A MILLER
Tech. Officer: GSFC/M L GOLDETEIN
CASE Category: 13 - PHYSICS

NAG 5 3554 UNIVERSITY OF ALABAMA - HUNTSVILLE 1125
 THE BEHAVIOR AND PROPERTIES OF HTE HARD X-RAY COMPONENT IN
 THE QS TEL
 12/14/1996 - 12/14/1998 FY99: \$0 Total: \$13,000
Prin. Invest.: R LIEU
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3672 UNIVERSITY OF ALABAMA - HUNTSVILLE 1126
 A STUDY OF PULSE SHAPE EVOLUTION AND X-RAY REPROCE
 01/02/1997 - 09/30/1999 FY99: -\$47 Total: \$9,453
Prin. Invest.: J V PARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3674 UNIVERSITY OF ALABAMA - HUNTSVILLE 1127
 STUDY OF THE TEMPORAL AND SPECTRAL VARIABILITY OF WITH BATSE
 01/02/1997 - 01/14/2000 FY99: \$0 Total: \$133,500
Prin. Invest.: J V PARADIJS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3675 UNIVERSITY OF ALABAMA - HUNTSVILLE 1128
 A STUDY OF TERRESTRIAL GAMMA-RAY FLASHES OBSERVED
 01/02/1997 - 01/14/2000 FY99: \$0 Total: \$34,001
Prin. Invest.: R MALLOZZI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3705 UNIVERSITY OF ALABAMA - HUNTSVILLE 1129
 EUV EMISSION FROM CLUSTERS OF GALAXIES AN EUVE STUDY OF THE
 ACCRETION MODE CHANGES IN THE
 02/11/1997 - 02/14/1999 FY99: -\$63 Total: \$23,360
Prin. Invest.: R LIEU
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 3805 UNIVERSITY OF ALABAMA - HUNTSVILLE 1130
 LONG TERM MONITORING OF THE X-RAY PULSAR 4U1538-52 LONG TERM
 MONITORING AND THESPECTRUM OF AQUILA X
 12/12/1996 - 12/14/1999 FY99: \$15,000 Total: \$66,044
Prin. Invest.: W PACIEBAB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3828 UNIVERSITY OF ALABAMA - HUNTSVILLE 1131
 STUDY OF GRB DETECTED BY BATSE/COMPTON AND PGS/MAR
 02/11/1997 - 08/14/1998 FY99: \$0 Total: \$10,000
Prin. Invest.: R PREECE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3905 UNIVERSITY OF ALABAMA - HUNTSVILLE 1132
 ORBITING ARRAY OF WIDE-ANGLE LIGHT COLLECTORS (OWL ORBITING
 EYES TO STUDY AIR SHOWERS INITIATED BY 1
 02/26/1997 - 05/31/1998 FY99: -\$157 Total: \$59,843
Prin. Invest.: Y TAKAHASHI
Tech. Officer: GSFC/J F ORMES
CASE Category: 11 - ASTRONOMY

NAG 5 4003 UNIVERSITY OF ALABAMA - HUNTSVILLE 1133
 AUTOMATED IDENTIFICATION OF MORPHOLOGICAL SIGNATUR IMAGES
 03/06/1997 - 02/29/2000 FY99: \$113,000 Total: \$327,000
Prin. Invest.: D G RICHARDS
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4027 UNIVERSITY OF ALABAMA - HUNTSVILLE 1134
 DIAGNOSTICS OF MASS MOTIONS IN SOLAR FLARES
 03/26/1997 - 03/31/2000 FY99: \$44,167 Total: \$208,000
Prin. Invest.: D EMSLIE
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 4111 UNIVERSITY OF ALABAMA - HUNTSVILLE 1135
 FAST SPECTROSCOPY OF Z SOURCES; OBSERVATIONS OF TH BURST
 04/28/1997 - 04/14/2000 FY99: \$0 Total: \$26,000
Prin. Invest.: J VAN PARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4268 UNIVERSITY OF ALABAMA - HUNTSVILLE 1136
 THERMAL STRUCTURE AND COMPOSITION OF THE INNER MAG
 03/25/1997 - 05/14/2000 FY99: \$64,183 Total: \$153,853
Prin. Invest.: D H COMFORT
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4419 UNIVERSITY OF ALABAMA - HUNTSVILLE 1137
 TOO OBSERVATIONS OF CYG X-1 DURING PERIODS OF INTE FLICKERING
 05/01/1997 - 04/30/1999 FY99: \$0 Total: \$10,000
Prin. Invest.: J VAN PARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4482 UNIVERSITY OF ALABAMA - HUNTSVILLE 1138
 LUMINOSITY DEPENDENCE OF THE X-RAY SPECTRA AND VAR ATOLL
 SOURCES
 05/15/1997 - 05/14/1999 FY99: \$0 Total: \$16,000
Prin. Invest.: J VANPARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4604 UNIVERSITY OF ALABAMA - HUNTSVILLE 1139
 THREE-DIMENSIONAL NUMERICAL SIMULATION OF NONLINEA IN THE
 AURORAL IONOSPHERE
 05/13/1997 - 01/31/2000 FY99: \$26,000 Total: \$115,957
Prin. Invest.: D SINGH
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4608 UNIVERSITY OF ALABAMA - HUNTSVILLE 1140
 ION ACCELERATION AND ABUNDANCE ENHANCEMENTS IN IMP
 05/20/1997 - 03/31/2001 FY99: \$49,583 Total: \$105,000
Prin. Invest.: P A MILLER
Tech. Officer: GSFC/J A LING
CASE Category: 11 - ASTRONOMY

NAG 5 4762 UNIVERSITY OF ALABAMA - HUNTSVILLE 1141
 DETERMINING GRAVITY WAVE ENERGETICS FROM COINCIDEN GROUND-
 BASED OBSERVATIONS OFNIGHTGLOW EMISSIONS
 06/05/1997 - 05/31/2000 FY99: \$0 Total: \$40,000
Prin. Invest.: D P HICKEY
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4788 UNIVERSITY OF ALABAMA - HUNTSVILLE 1142
 TESTING AND EVALUATION OF THE EOSDIS CORE SYSTEM:
 07/03/1997 - 06/30/1998 FY99: -\$9 Total: \$87,991
Prin. Invest.: R WELCH
Tech. Officer: GSFC/H RAMPRIYAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4878 UNIVERSITY OF ALABAMA - HUNTSVILLE 1143
 TOO OBSERVATIONS OF SOFT GAMMA REPEATERS
 07/03/1997 - 06/30/1998 FY99: \$0 Total: \$8,000
Prin. Invest.: J VANPARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4893 UNIVERSITY OF ALABAMA - HUNTSVILLE 1144
 COUPLING OF MICRO-AND MESO-SCALE PROCESSES DURING IC REFI-
 LING
 06/20/1997 - 01/31/2000 FY99: \$23,333 Total: \$70,000
Prin. Invest.: D SINGH, NONE
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4913 UNIVERSITY OF ALABAMA - HUNTSVILLE 1145
 PHENOMENA - ORIENTED DATA MINING
 07/02/1997 - 03/31/1999 FY99: \$0 Total: \$369,994
Prin. Invest.: S GRAVES
Tech. Officer: GSFC/R KREIDER
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4951 UNIVERSITY OF ALABAMA - HUNTSVILLE 1146
 ELECTRON ACCELERATION IN IMPULSIVE SOLAR FLARES
 06/23/1997 - 12/31/1999 FY99: \$40,500 Total: \$168,000
Prin. Invest.: P A MILLER
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 5112 UNIVERSITY OF ALABAMA - HUNTSVILLE 1147
 DEVELOPMENT OF SIFTER WITH SIMULTANEOUS TRACKING AND CAL-
 ORIMETRY
 02/12/1997 - 03/31/2000 FY99: \$150,000 Total: \$278,000
Prin. Invest.: G N PENDLETON
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6021 UNIVERSITY OF ALABAMA - HUNTSVILLE 1148
 ACCRETING BLACK HOLES - AN ALL OUT EFFORT
 08/19/1997 - 08/14/1999 FY99: \$52,336 Total: \$207,336
Prin. Invest.: J VAN PARADIJS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6040 UNIVERSITY OF ALABAMA - HUNTSVILLE 1149
 RADIATIVE EFFECTS OF SUBSONIC JET CONTRAILS
 09/03/1997 - 06/30/1998 FY99: -\$64 Total: \$51,936
Prin. Invest.: R WELCH
Tech. Officer: GSFC/R STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6123 UNIVERSITY OF ALABAMA - HUNTSVILLE 1150
 ENERGY BALANCE IN SOLAR STRUCTURES
 08/11/1997 - 01/31/1999 FY99: \$0 Total: \$76,575
Prin. Invest.: D EMSLIE
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6745 UNIVERSITY OF ALABAMA - HUNTSVILLE 1151
 BATSE OBSERVATIONS OF THE PICCINOTTI SAMPLE II: VA RIABILITY AND
 SPECTRALANALYSIS
 02/09/1998 - 02/14/1999 FY99: \$0 Total: \$10,000
Prin. Invest.: W S PACIESAS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6746 UNIVERSITY OF ALABAMA - HUNTSVILLE 1152
 IS THE NARROW E-PEAK DISTRIBUTION OF GAMMA-RAY BUR STS REAL?
 01/12/1998 - 01/14/2000 FY99: \$5,000 Total: \$20,000
Prin. Invest.: J BRAINERD, NONE
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6747 UNIVERSITY OF ALABAMA - HUNTSVILLE 1153
 HIGH-ENERGY SPECTRAL AND TEMPORAL CONSTRAINTS ON C OSMO-
 LOGICAL GAMMA-RAY BURSTS
 01/12/1998 - 01/14/2000 FY99: \$0 Total: \$27,958
Prin. Invest.: R KIPPEN
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6868 UNIVERSITY OF ALABAMA - HUNTSVILLE 1154
 EVALUATION OF LINE CANDIDATES IN BATSE GRB SPECTRA
 02/24/1998 - 02/28/1999 FY99: \$0 Total: \$10,800
Prin. Invest.: M S BRIGGS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6930 UNIVERSITY OF ALABAMA - HUNTSVILLE 1155
 IMPROVING THE LOCATION ACCURACY OF BACODINE
 01/29/1998 - 01/31/2000 FY99: \$0 Total: \$49,984
Prin. Invest.: G N PENDLETON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6986 UNIVERSITY OF ALABAMA - HUNTSVILLE 1156
 QUANTIFICATION OF CHANGES IN THEMOSPHERIC O/N2 FRO M OBSERVA-
 TIONS OF UV AIRGLOW AND AURORA
 02/10/1998 - 03/31/2000 FY99: \$77,583 Total: \$152,356
Prin. Invest.: G A GERMANY
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7005 UNIVERSITY OF ALABAMA - HUNTSVILLE 1157
 THE WARM PHASE OF THE INTRACLUSTER MEDIUM
 02/10/1998 - 02/14/2000 FY99: \$0 Total: \$30,000
Prin. Invest.: R LIEU
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7105 UNIVERSITY OF ALABAMA - HUNTSVILLE 1158
 XTE PROPOSAL - A SURVEY OF THE 30 DAY CYCLE IN LMC X-4; A STUDY OF PULSESHAPES EVOLUTION AND X-RAY R
 03/13/1998 - 03/31/2000 FY99: \$0 Total: \$20,000
Prin. Invest.: L VANPARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7106 UNIVERSITY OF ALABAMA - HUNTSVILLE 1159
 XTE PROPOSAL - BATSE AND VLA TRIGGERED OBSERVATIONS OF CYGNUS X-3
 03/13/1998 - 03/31/1999 FY99: \$0 Total: \$5,745
Prin. Invest.: W PACIESAS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7269 UNIVERSITY OF ALABAMA - HUNTSVILLE 1160
 DERIVATION OF TROPOSPHERIC OZONE CLIMATOLOGY AND TRENDS FROM TOMS DATA
 05/07/1998 - 12/31/1999 FY99: \$57,021 Total: \$142,021
Prin. Invest.: M NEWCHURCH
Tech. Officer: GSFC/S CHANDRA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7270 UNIVERSITY OF ALABAMA - HUNTSVILLE 1161
 VALIDATION AND INTERCOMPARISON OF TOMS AEROSOL PRODUCTS USING SATELLITE AND GROUND BASED MEASUREMENTS
 04/22/1998 - 12/31/1999 FY99: \$52,250 Total: \$127,250
Prin. Invest.: S A CHRISTOPHER
Tech. Officer: GSFC/J R HERMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7382 UNIVERSITY OF ALABAMA - HUNTSVILLE 1162
 XTE PROPOSAL - COMPREHENSIVE SURVEY OF ATOLL SOURCES
 05/06/1998 - 06/30/1999 FY99: \$0 Total: \$5,875
Prin. Invest.: J PARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7414 UNIVERSITY OF ALABAMA - HUNTSVILLE 1163
 XTE PROPOSAL (30079) - SIMULTANEOUS RXTE AND RADIO OBSERVATIONS OF THE RAPID BURSTER IN OUTBURST
 06/02/1998 - 06/30/2000 FY99: \$0 Total: \$5,000
Prin. Invest.: J VAN PARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7415 UNIVERSITY OF ALABAMA - HUNTSVILLE 1164
 XTE PROPOSAL (30056) ASM-TRIGGERED OBSERVATIONS OF KILOHERTZ OSCILLATIONS IN THREE ATOLL
 06/02/1998 - 06/30/2000 FY99: \$0 Total: \$5,450
Prin. Invest.: J VANPARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7482 UNIVERSITY OF ALABAMA - HUNTSVILLE 1165
 XTE PROPOSAL (30104) SEARCH FOR LOW-FLUX PULSATIONS FROM EXO 2030+375
 06/01/1998 - 01/04/1999 FY99: -\$8,875 Total: \$0
Prin. Invest.: M T STOLLBERG
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7483 UNIVERSITY OF ALABAMA - HUNTSVILLE 1166
 XTE PROPOSAL (30178) XTE TIMING AND SPECTROSCOPY OF F 1630-47 DURING A SECOND OUTBURST
 06/01/1998 - 09/30/1999 FY99: \$0 Total: \$6,292
Prin. Invest.: S W DIETERS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7494 UNIVERSITY OF ALABAMA - HUNTSVILLE 1167
 XTE PROPOSAL (30062) A VARYING KHZ PEAK SEPARATION IN 4U 1608-52?
 06/29/1998 - 06/30/2000 FY99: \$0 Total: \$7,025
Prin. Invest.: J VANPARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7542 UNIVERSITY OF ALABAMA - HUNTSVILLE 1168
 INFLUENCE OF ANTECEDENT LAND SURFACE HYDROLOGY ON MESOSCALE WATER AND ENERGY PROCESSES
 06/18/1998 - 05/31/1999 FY99: \$0 Total: \$8,000
Prin. Invest.: R MCNIDER
Tech. Officer: GSFC/M JASINSKI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7655 UNIVERSITY OF ALABAMA - HUNTSVILLE 1169
 REMOTE SENSING OF MAGNETOSPHERIC STRUCTURE USING (U, B, K) ANALYSIS OF ISTP PARTICLE AND FIELD DATA
 09/15/1998 - 08/31/2000 FY99: \$0 Total: \$43,706
Prin. Invest.: D SHELDON
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 7665 UNIVERSITY OF ALABAMA - HUNTSVILLE 1170
 XTE PROPOSAL (30152) - HARD X-RAY LOW STATE OBSERVATIONS OF MICROQUASARS
 09/09/1998 - 09/30/1999 FY99: \$0 Total: \$7,686
Prin. Invest.: S N ZHANG
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7667 UNIVERSITY OF ALABAMA - HUNTSVILLE 1171
 XTE PROPOSAL (30705) - SNAPSHOTS OF NEW ASM/BATSE TRANSIENT SOURCES WITH RXTE
 09/21/1998 - 09/30/1999 FY99: \$0 Total: \$2,375
Prin. Invest.: S ZHANG
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7772 UNIVERSITY OF ALABAMA - HUNTSVILLE 1172
 STUDY OF GAMMA-RAY BURST MONITOR FOR GLAST MISSION TO FURTHER DEFINE THE ENGINEERING CHARACTERISTIC
 10/28/1998 - 06/30/2000 FY99: \$20,000 Total: \$20,000
Prin. Invest.: D KIPPEN
Tech. Officer: GSFC/M DIJOSEPH
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 7785 UNIVERSITY OF ALABAMA - HUNTSVILLE 1173
 BATSE/SAX AND BATSE/RXTE-ASM JOINT SPECTRAL STUDY OF GRBS
 11/09/1998 - 11/30/1999 FY99: \$14,995 Total: \$14,995
Prin. Invest.: J VAN PARADIJS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7786 UNIVERSITY OF ALABAMA - HUNTSVILLE 1174
 STUDY OF THE PROPERTIES OF GRO J1744-28 USING THE BATSE DATA
 BASE
 11/09/1998 - 11/30/1999 FY99: \$11,995 Total: \$11,995
Prin. Invest.: J VAN PARADIJS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7808 UNIVERSITY OF ALABAMA - HUNTSVILLE 1175
 SEARCH FOR UNTRIGGERED EVENTS IN THE BATSE DATA BASE
 11/10/1998 - 11/30/1999 FY99: \$4,999 Total: \$4,999
Prin. Invest.: J VAN PARADIJS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7809 UNIVERSITY OF ALABAMA - HUNTSVILLE 1176
 IMPROVED CHARACTERIZATION OF PAST AND FUTURE BATSE GAMMA-
 RAY BURST LOCATIONS
 11/10/1998 - 11/30/1999 FY99: \$9,999 Total: \$9,999
Prin. Invest.: R KIPPEN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7811 UNIVERSITY OF ALABAMA - HUNTSVILLE 1177
 A NEW GRB DURATION MEASURE AND ITS APPLICATIONS TO COSMOLOG-
 ICAL INVARIANT PARAMETERS
 11/12/1998 - 11/30/1999 FY99: \$15,000 Total: \$15,000
Prin. Invest.: R PREECE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7812 UNIVERSITY OF ALABAMA - HUNTSVILLE 1178
 DETERMINING THE GRB LOW-ENERGY CONTINUUM BEHAVIOR WITH
 BATSE
 11/12/1998 - 11/30/1999 FY99: \$9,999 Total: \$9,999
Prin. Invest.: R PREECE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7823 UNIVERSITY OF ALABAMA - HUNTSVILLE 1179
 DISTINGUISHING GAMMA-RAY BURST MODELS BY COMPARING THEIR
 PREDICTIONS OF RAPID HIGH-ENERGY SPECTRAL
 11/13/1998 - 11/30/1999 FY99: \$9,998 Total: \$9,998
Prin. Invest.: G N PENDLETON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7824 UNIVERSITY OF ALABAMA - HUNTSVILLE 1180
 LONG TERM MONITORING AND OSSE TOO OBSERVATIONS OF GX339-4
 11/25/1998 - 11/30/1999 FY99: \$20,000 Total: \$20,000
Prin. Invest.: S N ZHANG
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7844 UNIVERSITY OF ALABAMA - HUNTSVILLE 1181
 MODELING COUPLED KATABATIC/ICE/OCEAN PROCESSES RELATED TO
 THE ENERGY AND CARBON BUDGET IN THE HIGH L
 11/18/1998 - 12/31/1999 FY99: \$119,584 Total: \$119,584
Prin. Invest.: R T MCNIDER, NONE
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7845 UNIVERSITY OF ALABAMA - HUNTSVILLE 1182
 SPECTRAL TESTS OF THE HOMOGENEITY OF BRIGHT GRBS
 11/25/1998 - 11/30/1999 FY99: \$5,000 Total: \$5,000
Prin. Invest.: M S BRIGGS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7927 UNIVERSITY OF ALABAMA - HUNTSVILLE 1183
 RELATIVISTIC ASTROPHYSICS IN BLACK HOLE AND LOW-MASS NEUTRON
 STAR X-RAY BINARIES - LTSA98
 01/12/1999 - 01/14/2000 FY99: \$31,556 Total: \$31,556
Prin. Invest.: S ZHANG
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7944 UNIVERSITY OF ALABAMA - HUNTSVILLE 1184
 ASCA PROPOSAL (41049) A NEW TRANSIENT WITH A RECURRENT OUT-
 BURST PERIOD OF 241 DAYS
 02/05/1999 - 01/31/2000 FY99: \$16,300 Total: \$16,300
Prin. Invest.: S ZHANG
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 7972 UNIVERSITY OF ALABAMA - HUNTSVILLE 1185
 TESTING THE PHYSICAL MECHANISMS OF GAMMA-RAY BURSTS WITH
 MULTI-INSTRUMENT TIME-RESOL
 12/22/1998 - 12/31/1999 FY99: \$85,564 Total: \$85,564
Prin. Invest.: M S BRIGGS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7979 UNIVERSITY OF ALABAMA - HUNTSVILLE 1186
 A SURVEY OF RING CURRENT DIRECT INJECTION EVENTS
 01/13/1999 - 01/14/2000 FY99: \$40,037 Total: \$40,037
Prin. Invest.: R SHELDON
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 7991 UNIVERSITY OF ALABAMA - HUNTSVILLE 1187
 AN EMPIRICAL MODEL OF CORONAL HEATING DEDUCED FROM SOHO
 OBSERVATIONS OF TRANSITION REGION DYNAM
 01/05/1999 - 01/31/2000 FY99: \$82,538 Total: \$82,538
Prin. Invest.: G EMLIE
Tech. Officer: GSFC/J GURMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8009 UNIVERSITY OF ALABAMA - HUNTSVILLE 1188
 GEOMAGNETIC CUTOFF RIGIDITY COMPUTER PROGRAM
 01/13/1999 - 12/31/1999 FY99: \$10,000 Total: \$10,000
Prin. Invest.: M SHEA
Tech. Officer: GSFC/J H BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 8011 UNIVERSITY OF ALABAMA - HUNTSVILLE 1189
 GROUND-LEVEL SOLAR COSMIC RAY DATA FROM SOLAR CYCLE 19
 01/13/1999 - 12/31/1999 FY99: \$29,000 Total: \$29,000
Prin. Invest.: M SHEA
Tech. Officer: GSFC/J H BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 8034 UNIVERSITY OF ALABAMA - HUNTSVILLE 1190
 UAH ANALYSIS OF TIDE/PSI DATA FOR ISTEP SOLAR MAXIMUM EXTENDED MISSION
 01/19/1999 - 01/31/2000 FY99: \$125,862 Total: \$125,862
 Prin. Invest.: H COMFORT
 Tech. Officer: GSFC/R HOFFMAN
 CASE Category: 11 - ASTRONOMY

NAG 5 8101 UNIVERSITY OF ALABAMA - HUNTSVILLE 1191
 XTE PROPOSAL (10093) - CORRELATED OBSERVATIONS OF THE X-RAY BURSTER4U 1608-522
 01/26/1999 - 01/31/2000 FY99: \$10,000 Total: \$10,000
 Prin. Invest.: S ZHANG
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8102 UNIVERSITY OF ALABAMA - HUNTSVILLE 1192
 XTE PROPOSAL (10095) HARD X-RAY EMISSION OF X-RAY BURSTERS(ZHANGIS CO-INVESTIGATOR F
 01/27/1999 - 01/31/2000 FY99: \$5,700 Total: \$5,700
 Prin. Invest.: S ZHANG
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8125 UNIVERSITY OF ALABAMA - HUNTSVILLE 1193
 SNAPSHOTS OF NEW ASM/BASTE TRANSIENT SOURCES WITH RXTE
 03/04/1999 - 02/14/2000 FY99: \$7,714 Total: \$7,714
 Prin. Invest.: S ZHANG
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8200 UNIVERSITY OF ALABAMA - HUNTSVILLE 1194
 QUANTIFICATION OF THERMOSPHERIC AND IONOSPHERIC CHANGES DURING MAGNETIC STORMS
 02/04/1999 - 01/14/2000 FY99: \$39,000 Total: \$39,000
 Prin. Invest.: D G RICHARDS
 Tech. Officer: GSFC/M MELLOTT
 CASE Category: 11 - ASTRONOMY

NAG 5 8210 UNIVERSITY OF ALABAMA - HUNTSVILLE 1195
 TOWARDS AN UNDERSTANDING OF THE LUMINOUS SOFT EXCESS EMISSION FROM CLUSTERS OF GALAXIES (ADP9
 02/25/1999 - 02/29/2000 FY99: \$37,762 Total: \$37,762
 Prin. Invest.: R LIEU
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8219 UNIVERSITY OF ALABAMA - HUNTSVILLE 1196
 XTE PROPOSAL - X-RAY/OPTICAL CORRELATIONS IN NOVA-LIKE CATAclysmic VARIABLES
 02/08/1999 - 01/31/2000 FY99: \$9,625 Total: \$9,625
 Prin. Invest.: S ZHANG
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8220 UNIVERSITY OF ALABAMA - HUNTSVILLE 1197
 XTE PROPOSAL (30184) - CGRO/BASTE AND RADIO TRIGGERED MULTIWAVELENGTH OBSERVATIONS OF THE GALACTIC
 02/09/1999 - 01/31/2000 FY99: \$8,500 Total: \$8,500
 Prin. Invest.: S R ZHANG
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8233 UNIVERSITY OF ALABAMA - HUNTSVILLE 1198
 LOCATING & DETERMINING THE NATURE OF A PERSISTENT HARD X-RAY SOURCE GRO J1814-12; MONITORING X-RAY
 03/05/1999 - 02/14/2000 FY99: \$700 Total: \$700
 Prin. Invest.: S ZHANG
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8234 UNIVERSITY OF ALABAMA - HUNTSVILLE 1199
 BASTE TRIGGERED MULTIWAVELENGTH OBSERVATIONS OF THE GALACTIC SUPERLUMINAL SOURCES GRO J1655-40 AND
 03/03/1999 - 02/14/2000 FY99: \$23,779 Total: \$23,779
 Prin. Invest.: C ROBINSON
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8245 UNIVERSITY OF ALABAMA - HUNTSVILLE 1200
 MONITORING X-RAY EMISSION FROM X-RAY BURSTERS
 02/10/1999 - 02/14/2000 FY99: \$10,011 Total: \$10,011
 Prin. Invest.: S N ZHANG
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8303 UNIVERSITY OF ALABAMA - HUNTSVILLE 1201
 RESTORATION, ENHANCEMENT, AND DISTRIBUTION OF THE ATLAS-1 IMAGING SPECTROMETRIC OBSERVATORY (ISO)
 03/05/1999 - 03/14/2000 FY99: \$114,669 Total: \$114,669
 Prin. Invest.: G A GERMANY
 Tech. Officer: GSFC/J BREDEKAMP
 CASE Category: 11 - ASTRONOMY

NAG 5 8353 UNIVERSITY OF ALABAMA - HUNTSVILLE 1202
 TESTING MODELS OF RESONANT COMPTON SCATTERING IN X-RAY PULSARS_ ADP 98
 03/01/1999 - 02/29/2000 FY99: \$19,991 Total: \$19,991
 Prin. Invest.: J J BRAINERD
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8404 UNIVERSITY OF ALABAMA - HUNTSVILLE 1203
 THE DIRECT RADIATIVE FORCING OF BIOMASS BURNING AEROSOLS: INVESTIGATIONS DURING SCAR-B AND ZIBBEE
 03/15/1999 - 04/14/1999 FY99: \$0 Total: \$0
 Prin. Invest.: S A CHRISTOPHER
 Tech. Officer: GSFC/M MISCHENKO
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8432 UNIVERSITY OF ALABAMA - HUNTSVILLE 1204
 A HARD AND SOFT X-RAY TRIGGERED OUTBURST STUDY OF AQUILA X-1
 04/01/1999 - 01/31/2000 FY99: \$915 Total: \$915
 Prin. Invest.: S ZHANG
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8433 UNIVERSITY OF ALABAMA - HUNTSVILLE 1205
 ASCA PROPOSAL - X-RAY SPECTROSCOPY OF THE TWO GALACTIC SUPERLUMINAL SOURCES: GRO J1655-40 &
 04/01/1999 - 01/31/2000 FY99: \$19,000 Total: \$19,000
 Prin. Invest.: S ZHANG
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 8440 UNIVERSITY OF ALABAMA - HUNTSVILLE 1206
 BROAD BAND LONG TERM MONITORING OF X-RAY BURSTERS
 04/01/1999 - 01/31/2000 FY99: \$14,700 Total: \$14,700
 Prin. Invest.: S ZHANG
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 8480 UNIVERSITY OF ALABAMA - HUNTSVILLE 1207
 STOCHASTIC PARTICLE ACCELERATION IN IMPULSIVE SOLAR FLARES
 04/29/1999 - 04/30/2000 FY99: \$56,091 Total: \$56,091
 Prin. Invest.: J J MILLER
 Tech. Officer: GSFC/W J WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 8523 UNIVERSITY OF ALABAMA - HUNTSVILLE 1208
 MULTIWAVELENGTH EXAMINATION OF GALACTIC SUPERLUMINOUS JET
 SOURCES (LTS98)
 05/27/1999 - 05/31/2000 FY99: \$70,000 Total: \$70,000
 Prin. Invest.: S ZHANG
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8606 UNIVERSITY OF ALABAMA - HUNTSVILLE 1209
 GRB AFTERGLOW OBSERVATIONS WITH THE WHIPPLE OBSERVATORY
 06/07/1999 - 06/14/2000 FY99: \$9,986 Total: \$9,986
 Prin. Invest.: W PACIESAS
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 8620 UNIVERSITY OF ALABAMA - HUNTSVILLE 1210
 OBSERVATIONS OF BL LAC OBJECTS USING THE BATSE OCCULTATION
 TECHNIQUE
 06/18/1999 - 06/14/2000 FY99: \$14,994 Total: \$14,994
 Prin. Invest.: W PACIESAS
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 8646 UNIVERSITY OF ALABAMA - HUNTSVILLE 1211
 "STUDY OF THE EVOLUTION OF PRECIPITATION AND CLOUD STRUCTURES
 DURING THE LIFE CYCLES OF TROPICAL...
 07/19/1999 - 07/31/2000 FY99: \$21,999 Total: \$21,999
 Prin. Invest.: Q HAN
 Tech. Officer: GSFC/W B ROSSOW
 CASE Category: 13 - PHYSICS

NAG 5 8690 UNIVERSITY OF ALABAMA - HUNTSVILLE 1212
 SYSTEMATIC STUDY OF PROPELLER EFFECTS IN NEUTRON STAR BINARIES
 07/26/1999 - 07/31/2000 FY99: \$8,605 Total: \$8,605
 Prin. Invest.: S N ZHANG, NONE
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 8 1028 UNIVERSITY OF ALABAMA - HUNTSVILLE 1213
 TECHNOLOGY REINVESTMENT PROGRAM
 03/16/1994 - 03/17/1998 FY99: -\$85 Total: \$298,363
 Prin. Invest.: J O DIMMOCK
 Tech. Officer: MSFC/J CARLISLE
 CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1071 UNIVERSITY OF ALABAMA - HUNTSVILLE 1214
 SURFACE CHARACTERIZATION AND CONTAMINATION ANALYSIS
 04/01/1994 - 02/28/1999 FY99: \$0 Total: \$276,887
 Prin. Invest.: G L WORKMAN, B J SCHROER
 Tech. Officer: MSFC/B H NERREN, MSFC/D BURNS
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 8 1084 UNIVERSITY OF ALABAMA - HUNTSVILLE 1215
 ON WAVE PROCESSES IN THE SOLAR ATMOSPHERE
 08/22/1994 - 08/22/1998 FY99: -\$1 Total: \$80,703
 Prin. Invest.: Z E MUSIELAK
 Tech. Officer: MSFC/E J REICHMANN, MSFC/J M DAVIS
 CASE Category: 11 - ASTRONOMY

NAG 8 1161 UNIVERSITY OF ALABAMA - HUNTSVILLE 1216
 NUCLEATION & CONVECTION EFFECTS IN PROTEIN CRYSTAL GROWTH
 07/25/1995 - 07/24/1998 FY99: -\$981 Total: \$587,285
 Prin. Invest.: F E ROSENBERGER
 Tech. Officer: MSFC/T Y MILLER, MSFC/D C CARTER
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1216 UNIVERSITY OF ALABAMA - HUNTSVILLE 1217
 HYBRID ROCKET POWERED UPPER STAGE TECHNOLOGY GROUND DEMONSTRATOR PROJECT
 11/30/1995 - 03/15/1999 FY99: \$17,646 Total: \$77,701
 Prin. Invest.: R A FREDERICK, D A EVANS
 Tech. Officer: MSFC/T KUBLIN
 CASE Category: 46 - MECHANICAL ENGR

NAG 8 1217 UNIVERSITY OF ALABAMA - HUNTSVILLE 1218
 HIGH SPEED HIGH PRECISION DRIVE MECHANISM
 12/01/1995 - 11/30/1998 FY99: -\$32 Total: \$84,518
 Prin. Invest.: N LI
 Tech. Officer: MSFC/R KOCZOR
 CASE Category: 46 - MECHANICAL ENGR

NAG 8 1229 UNIVERSITY OF ALABAMA - HUNTSVILLE 1219
 A THEORETICAL & EXPERIMENTAL INVESTIGATION OF VIBRATIONAL CONTROL OF BRIDGMAN CRYSTAL GROWTH TECH
 05/31/1996 - 05/31/2000 FY99: \$84,990 Total: \$297,478
 Prin. Invest.: A FEDOSEYER
 Tech. Officer: MSFC/P DOTY
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1307 UNIVERSITY OF ALABAMA - HUNTSVILLE 1220
 RESEARCH "SHOOTING STAR EXPERIMENTAL SOLAR THERMAL ENGINE AND CONCENTRATOR TESTING AT UAH
 09/19/1996 - 06/30/1999 FY99: \$33,000 Total: \$341,379
 Prin. Invest.: J BONEMETTI, D A GREGORY
 Tech. Officer: MSFC/D SIERMA, MSFC/L CURTIS
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 8 1308 UNIVERSITY OF ALABAMA - HUNTSVILLE 1221
 RESEARCH "HIGH-STRENGTH MAGNET LEVITATION SYSTEM & HIGH SPEED CRYOGENIC ROTATION MECHANISMS
 09/20/1996 - 03/23/1999 FY99: \$0 Total: \$50,000
 Prin. Invest.: N LI
 Tech. Officer: MSFC/J T HOWELL
 CASE Category: 13 - PHYSICS

NAG 8 1354 UNIVERSITY OF ALABAMA - HUNTSVILLE 1222
 R/S PROTEIN PRECIPITANT SPECIFIC CRITERIA FOR THE IMPACT OF
 REDUCED GRAVITY ON CRYSTAL PEFECTON
 06/04/1997 - 11/30/2000 FY99: \$209,025 Total: \$517,406
Prin. Invest.: F ROSENBERGER
Tech. Officer: MSFC/C R TALLEY, MSFC/J P DOWNEY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1355 UNIVERSITY OF ALABAMA - HUNTSVILLE 1223
 RESEARCH "INFRARED SIGNATURES FOR MAMMALIAN CELLS IN CULTURE"
 06/26/1997 - 11/30/2000 FY99: \$124,000 Total: \$310,987
Prin. Invest.: K CHITTUR
Tech. Officer: MSFC/B GUYNES
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1388 UNIVERSITY OF ALABAMA - HUNTSVILLE 1224
 1997 SUMMER TEACHER ENRICHMENT PROGRAM UNDER THE DIRECTION
 OF DR. GERALD R. KARR.
 07/01/1997 - 06/30/1999 FY99: \$0 Total: \$143,690
Prin. Invest.: G KARR, L FREEMAN
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1403 UNIVERSITY OF ALABAMA - HUNTSVILLE 1225
 THEORETICAL ANALYSIS FOR CONSTRUCTION OF A NON- GRAVITY LAB-
 ORATORY ON ORBIT
 08/28/1997 - 09/13/2000 FY99: \$74,997 Total: \$84,997
Prin. Invest.: L SMALLEY
Tech. Officer: MSFC/J CAMPBELL
CASE Category: 12 - CHEMISTRY

NAG 8 1456 UNIVERSITY OF ALABAMA - HUNTSVILLE 1226
 GROUND BASED EXPERIMENTS IN SUPPORT OF MICRO- GRAVITY
 RESEARCH RESULTS VAPOR GROWTH OF ORGANIC
 03/31/1998 - 01/31/2002 FY99: \$87,000 Total: \$147,000
Prin. Invest.: M T ZUGRAV
Tech. Officer: MSFC/P M DOTY
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1464 UNIVERSITY OF ALABAMA - HUNTSVILLE 1227
 REDUCTION OF CONVECTION IN CLOSED TUBE VAPOR GROWTH EXPERI-
 MENTS
 03/24/1998 - 09/30/1999 FY99: \$113,333 Total: \$180,000
Prin. Invest.: R J NAUMANN
Tech. Officer: MSFC/P M DOTY
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1476 UNIVERSITY OF ALABAMA - HUNTSVILLE 1228
 THERMOPHYSICAL PROPERTY MEASUREMENTS OF TE-BASED II-VI SEMI-
 CONDUCTOR COMPOUNDS
 03/26/1998 - 09/30/2001 FY99: \$170,000 Total: \$266,250
Prin. Invest.: M BANISH
Tech. Officer: MSFC/S SPEARMAN
CASE Category: 56 - MEDICL

NAG 8 1548 UNIVERSITY OF ALABAMA - HUNTSVILLE 1229
 STUDY OF INSPECTION OF CRITICAL SURFACES AND AEROSPACE SYS-
 TEMS
 09/24/1998 - 09/24/2000 FY99: \$55,000 Total: \$92,000
Prin. Invest.: G WORKMAN
Tech. Officer: MSFC/S RUSSELL
CASE Category: 41 - AERONAUTICAL ENGR

NAG 8 1577 UNIVERSITY OF ALABAMA - HUNTSVILLE 1230
 CONTROL OF TRANSPORT IN PROTEIN CRYSTAL USING RESTRICTIVE
 GEOMETRIES
 12/16/1998 - 11/30/2001 FY99: \$93,000 Total: \$93,000
Prin. Invest.: R J NAVMANN
Tech. Officer: MSFC/B GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1598 UNIVERSITY OF ALABAMA - HUNTSVILLE 1231
 R/S SUPPORT OF G LIMIT FOR ISOLATION OF SPACE SCIENCE EXPERI-
 MENTS
 12/28/1998 - 12/27/1999 FY99: \$57,314 Total: \$57,314
Prin. Invest.: R D HAMPTON
Tech. Officer: MSFC/D C ALHORN
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 8 1613 UNIVERSITY OF ALABAMA - HUNTSVILLE 1232
 NATIONAL SPACE SCIENCE AND TECHNOLOGY CENTER FACILITIES
 06/28/1999 - 12/31/1999 FY99: \$4,000,000 Total: \$4,000,000
Prin. Invest.: L R GREENWOOD
Tech. Officer: MSFC/G S WILSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1011 UNIVERSITY OF ALABAMA - HUNTSVILLE 1233
 DEVELOP DYNAMIC GEOMAGNETIC CUTOFF RIGIDITY MODEL
 06/01/1998 - 07/31/1999 FY99: \$0 Total: \$34,992
Prin. Invest.: D F SMART
Tech. Officer: JSC/M GOLIGHTLY
CASE Category: 22 - COMPUTER SCIENCE

NAGW 812 UNIVERSITY OF ALABAMA - HUNTSVILLE 1234
 MATERIAL PROCESSING
 09/15/1985 - 10/31/1997 FY99: \$0 Total: \$38,495,975
Prin. Invest.: G R KARR, C A LUNDQUIST
Tech. Officer: HQ/R P WHITTEN, HQ/A VILLAMIL
CASE Category: 47 - METAL & MATERIALS ENGR

NAGW 3617 UNIVERSITY OF ALABAMA - HUNTSVILLE 1235
 THE OBSERVED CHARACTER OF FLARE ENERGY RELEASES
 05/26/1993 - 09/30/1997 FY99: -\$443 Total: \$206,132
Prin. Invest.: A G EMSLIE
Tech. Officer: HQ/W J WAGNER, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4259 UNIVERSITY OF ALABAMA - HUNTSVILLE 1236
 PHENOMENA ORIENTED DATA MINING
 01/31/1995 - 04/30/1998 FY99: -\$2,361 Total: \$861,054
Prin. Invest.: S GRAVES
Tech. Officer: HQ/R S MCGINNIS
CASE Category: 22 - COMPUTER SCIENCE

NAGW 4378 UNIVERSITY OF ALABAMA - HUNTSVILLE 1237
 ION ACCELERATION AND ABUNDANCE ENHANCEMENTS IN IMP ULSIVE
 SOLAR FLARES
 03/31/1995 - 03/31/1998 FY99: -\$3,942 Total: \$73,811
Prin. Invest.: J A MILLER
Tech. Officer: HQ/W V JONES, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4470 UNIVERSITY OF ALABAMA - HUNTSVILLE 1238
 3-DIMENSIONAL NUMERICAL SIMULATION OF NONLINEAR LOW FREQUENCY HYBRID
 WAVE PROPAGATION
 05/15/1995 - 06/30/1998 FY99: \$0 Total: \$146,577
Prin. Invest.: N SINGH
Tech. Officer: HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4749 UNIVERSITY OF ALABAMA - HUNTSVILLE 1239
 OPTIMIZING THE MERGING STRATEGY FOR MSU GLOBAL GRIDDED TEM-
 PERATURES
 09/12/1995 - 12/31/1998 FY99: -\$371 Total: \$112,665
Prin. Invest.: J R CHRISTY
Tech. Officer: HQ/M E MAIDEN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 5082 UNIVERSITY OF ALABAMA - HUNTSVILLE 1240
 ELECTRON ACCELERATION
 06/04/1996 - 09/30/1997 FY99: -\$2,184 Total: \$71,816
Prin. Invest.: J A MILLER
Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE
CASE Category: 13 - PHYSICS

NAS 1 98131 UNIVERSITY OF ALABAMA - HUNTSVILLE 1241
 CLOUDS AND THE EARTH'S RADIANT ENERGY SYSTEM SCIENTIFIC INVES-
 TIGATIONS
 11/01/1998 - 10/31/2001 FY99: \$248,000 Total: \$248,000
Prin. Invest.: R WELCH
Tech. Officer: LARC/B A WIELICKI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31718 UNIVERSITY OF ALABAMA - HUNTSVILLE 1242
 EOS ASTER/HRIS INVESTIGATION
 01/09/1992 - 12/14/2001 FY99: \$167,000 Total: \$1,436,544
Prin. Invest.: R WELCH
Tech. Officer: GSFC/T BRAKE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 98036 UNIVERSITY OF ALABAMA - HUNTSVILLE 1243
 GLAST INSTRUMENT TECHNOLOGY
 07/07/1998 - 02/15/2000 FY99: \$1,093,400 Total: \$1,403,433
Prin. Invest.: J PENDLETON
Tech. Officer: GSFC/M D JOSEPH
CASE Category: 11 - ASTRONOMY

NAS 5 99179 UNIVERSITY OF ALABAMA - HUNTSVILLE 1244
 DEVELOPMENT OF HDF-EOS SUBSETTER SOFTWARE FOR ESDIS.
 02/12/1999 - 01/31/2000 FY99: \$280,000 Total: \$280,000
Prin. Invest.: M SUMMERLIN
Tech. Officer: GSFC/R E HARBAUGH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 97239 UNIVERSITY OF ALABAMA - HUNTSVILLE 1245
 HISTORY OF MSFC MANUSCRIPT (CONTRACT TRANSFER FROM
 NAS8-38609)
 03/31/1997 - 03/31/2000 FY99: -\$7,822 Total: \$609,938
Prin. Invest.: A J DUNAR
Tech. Officer: MSFC/M D WRIGHT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 8 98226 UNIVERSITY OF ALABAMA - HUNTSVILLE 1246
 THE DESIGN AND DEVELOPMENT OF THE ORBITAL ARRAY OF WIDE ANGLE
 LENSES MISSION OPTICAL SYSTEM
 07/01/1998 - 01/31/2000 FY99: \$345,000 Total: \$545,000
Prin. Invest.: Y TAKAHASHI
Tech. Officer: MSFC/M WATSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 165 UNIVERSITY OF ALABAMA - HUNTSVILLE 1247
 TO SUPPORT RESEARCH ACTIVITIES UNDER THE NASA EXPLORE STIMULATE
 COMPETITIVE RESEARCH (EPSCOR)
 11/02/1996 - 08/31/2000 FY99: \$400,000 Total: \$1,899,998
Prin. Invest.: J C GREGORY
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 391 UNIVERSITY OF ALABAMA - HUNTSVILLE 1248
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/13/1999 - 08/31/2000 FY99: \$225,000 Total: \$225,000
Prin. Invest.: J GREGORY
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 22 UNIVERSITY OF ALABAMA - HUNTSVILLE 1249
 GLOBAL CHANGE RESEARCH
 09/01/1993 - 02/28/1998 FY99: \$0 Total: \$16,792,190
Prin. Invest.: D J PERKEY, S O KIDDER, R T MCNIDER
Tech. Officer: MSFC/L R GREENWOOD, MSFC/J SIMONDS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 8 65 UNIVERSITY OF ALABAMA - HUNTSVILLE 1250
 RESEARCH & APPLIED TECHNOLOGY & DEVELOPMENT OF FUTURE PRO-
 GRAMS
 02/15/1995 - 02/21/2000 FY99: \$2,107,783 Total: \$12,485,144
Prin. Invest.: S T WU
Tech. Officer: MSFC/U URBAN, MSFC/G J FISHMAN
CASE Category: 13 - PHYSICS

NCC 8 97 UNIVERSITY OF ALABAMA - HUNTSVILLE 1251
 SPACE AND GROUND BASED CRYSTAL GROWTH USING MAGNETICALLY
 COUPLED BAFFLE
 06/13/1996 - 07/14/2000 FY99: \$140,104 Total: \$462,013
Prin. Invest.: A G OSTROGORSKY
Tech. Officer: MSFC/D SCHAEFER
CASE Category: 11 - ASTRONOMY

NCC 8 99 UNIVERSITY OF ALABAMA - HUNTSVILLE 1252
 SELF-DIFFUSION IN LIQUID ELEMENTS
 05/24/1996 - 12/31/2000 FY99: \$228,982 Total: \$1,025,050
Prin. Invest.: F ROSENBERGER
Tech. Officer: MSFC/S SPEARMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 8 123 UNIVERSITY OF ALABAMA - HUNTSVILLE 1253
 RESEARCH RBCC EJECTOR RAMJET DESIGN OPTIMIZATION
 11/22/1996 - 05/31/1999 FY99: \$0 Total: \$186,426
Prin. Invest.: C HAWK
Tech. Officer: MSFC/M FAZAH
CASE Category: 41 - AERONAUTICAL ENGR

NCC 8 132 UNIVERSITY OF ALABAMA - HUNTSVILLE 1254
 FOR RESEARCH: "CONSORTIUM FOR MATERIALS DEVELOP- MEFNT IN SPACE."
 01/29/1997 - 10/31/1999 FY99: \$1,774,839 Total: \$4,480,507
Prin. Invest.: C A LUNDQUIST
Tech. Officer: MSFC/J WATKINS
CASE Category: 49 - ENGINEERING, OTHER

NCC 8 141 UNIVERSITY OF ALABAMA - HUNTSVILLE 1255
 GLOBAL CHANGE RESEARCH RELATED TO THE EARTH'S ENERGY AND HYDROLOGY CYCLE
 09/22/1997 - 09/29/2002 FY99: \$6,136,940 Total: \$13,369,273
Prin. Invest.: R MCNIDER
Tech. Officer: MSFC/R GREENWOOD, MSFC/J SIMON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 8 146 UNIVERSITY OF ALABAMA - HUNTSVILLE 1256
 R/S INVESTIGATION OF SPACE BASED SOLID STATE COHERENT LIDAR UNDER DR. FARZIN AMZAJERDIAN
 10/02/1997 - 03/31/2001 FY99: \$625,000 Total: \$1,064,919
Prin. Invest.: F AMZAJERDIAN
Tech. Officer: MSFC/S C JOHNSON, MSFC/B F JONES
CASE Category: 49 - ENGINEERING, OTHER

NCC 8 178 UNIVERSITY OF ALABAMA - HUNTSVILLE 1257
 SUPPORT FOR THE NEW ACCOUNTING SYSTEM, SPECIFIC- ALLY THE INTEGRATED FINANCIALMANAGEMENT SYSTEM.
 04/05/1999 - 09/30/2000 FY99: \$251,770 Total: \$251,770
Prin. Invest.: W MORSE
Tech. Officer: MSFC/F MAYHALL
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 8 180 UNIVERSITY OF ALABAMA - HUNTSVILLE 1258
 INTERNATIONAL SPACE STATION MICROGRAVITY DATA AND INFORMATION SYSTEMS
 03/19/1999 - 02/28/2002 FY99: \$98,000 Total: \$98,000
Prin. Invest.: S J GRAVES
Tech. Officer: MSFC/C C LAPENTA
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 9 49 UNIVERSITY OF ALABAMA - HUNTSVILLE 1259
 SEDSAT 1 DEVELOPMENT AND LAUNCH
 12/19/1996 - 01/01/1999 FY99: \$0 Total: \$226,533
Prin. Invest.: M W MAIER
Tech. Officer: JSC/C A O'NEILL
CASE Category: 41 - AERONAUTICAL ENGR

NCCW 57 UNIVERSITY OF ALABAMA - HUNTSVILLE 1260
 EPSCOR PROGRAM
 08/08/1994 - 09/30/1997 FY99: \$0 Total: \$1,000,000
Prin. Invest.: J GREGORY
Tech. Officer: HQ/L KEFFER, HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40010 UNIVERSITY OF ALABAMA - HUNTSVILLE 1261
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 09/28/1989 - 02/28/2000 FY99: -\$11,217 Total: \$3,009,698
Prin. Invest.: C A LUNDQUIST, H WILSON
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51400 UNIVERSITY OF ALABAMA - HUNTSVILLE 1262
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1995 - 06/30/1998 FY99: -\$1 Total: \$21,999
Prin. Invest.: J L HORWITZ
Tech. Officer: MSFC/F SIX
CASE Category: 13 - PHYSICS

NGT 70390 UNIVERSITY OF ALABAMA - HUNTSVILLE 1263
 GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/23/1994 - 12/31/1997 FY99: -\$1,029 Total: \$262,971
Prin. Invest.: P C RICHARDS
Tech. Officer: HQ/D K RUSSELL
CASE Category: 12 - CHEMISTRY

NGT 5 30168 UNIVERSITY OF ALABAMA - HUNTSVILLE 1264
 IMPACT OF AEROSOLS ON THE CLEAR SKY SHORTWAVE RADIATIVE FLUXES OVERBIOMASS BURNING REGIONS IN
 09/01/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R M WELCH, LI
Tech. Officer: HQ/A NURRIDIN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40018 UNIVERSITY OF ALABAMA - HUNTSVILLE 1265
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.
 01/09/1997 - 10/31/2000 FY99: \$512,693 Total: \$1,416,503
Prin. Invest.: J GEOGORY
Tech. Officer: HQ/J E DASCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50163 UNIVERSITY OF ALABAMA - HUNTSVILLE 1266
 AN EMPIRICAL MODEL OF CORONAL HEATING DEDUCED FROM SOHO OBSERVATIONS OF TRANSITION REGION DYNAMICS
 06/02/1998 - 07/31/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: E EMSLIE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 - PHYSICS

NGT 5 70004 UNIVERSITY OF ALABAMA - HUNTSVILLE 1267
 GRADUATE STUDENT RESERCH PROGRAM - STUDENTS: MAYR PETTI-GREW, AND RUBY LATHON
 08/26/1997 - 06/30/1999 FY99: \$0 Total: \$58,000
Prin. Invest.: P G RICHARDS
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90020 UNIVERSITY OF ALABAMA - HUNTSVILLE 1268
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 01/24/1997 - 08/14/1998 FY99: -\$3,465 Total: \$32,385
Prin. Invest.: S KOWEL
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 46 - MECHANICAL ENGR

NGT 8 52804 UNIVERSITY OF ALABAMA - HUNTSVILLE 1269
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/28/1995 - 07/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: D FEIKEMA
Tech. Officer: MSFC/J J HUTT
CASE Category: 46 - MECHANICAL ENGR

ALABAMA

NASA'S UNIVERSITY PROGRAM

NGT 8 52812 UNIVERSITY OF ALABAMA - HUNTSVILLE 1270
 JOVE
 09/25/1995 - 09/30/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: D FORK
Tech. Officer: MSFC/J BILBRO
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52825 UNIVERSITY OF ALABAMA - HUNTSVILLE 1271
 R/S GRAD STUDENT RESEARCH PROGRAM
 08/26/1996 - 08/25/1998 FY99: \$0 Total: \$44,000
Prin. Invest.: D HAWK
Tech. Officer: MSFC/F SIX, MSFC/E HYDE
CASE Category: 41 - AERONAUTICAL ENGR

NGT 8 52833 UNIVERSITY OF ALABAMA - HUNTSVILLE 1272
 GRADUATE STUDENT RESEARCHERS PROGRAM - FELLOWSHIP FOR
 GARRY M ESTEP
 09/25/1996 - 07/01/1998 FY99: -\$4,281 Total: \$39,719
Prin. Invest.: J L HORWITZ
Tech. Officer: MSFC/J R PRUITT
CASE Category: 13 - PHYSICS

NGT 8 52836 UNIVERSITY OF ALABAMA - HUNTSVILLE 1273
 1997 SUMMER FACULTY FELLOWSHIP PROGRAM
 03/28/1997 - 03/31/1999 FY99: \$0 Total: \$792,002
Prin. Invest.: G R KARR, L M FREEMAN
Tech. Officer: MSFC/J R DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52837 UNIVERSITY OF ALABAMA - HUNTSVILLE 1274
 "1997 NASA ACADEMY" UNDER THE DIRECTION OF DR. GERALD KARR.
 05/29/1997 - 12/01/1997 FY99: \$0 Total: \$69,377
Prin. Invest.: G R KARR
Tech. Officer: MSFC/J R DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52843 UNIVERSITY OF ALABAMA - HUNTSVILLE 1275
 GRADUATE STUDENT RESEARCHERS PROGRAM FELLOWSHIP
 08/05/1997 - 08/31/2000 FY99: \$0 Total: \$22,000
Prin. Invest.: Y B SHTESSEL
Tech. Officer: MSFC/J H DOWDY
CASE Category: 45 - ELECTRICAL ENGR

NGT 8 52855 UNIVERSITY OF ALABAMA - HUNTSVILLE 1276
 INVESTIGATION OF EJECTOR PERFORMANCE IN A ROCKET BASED COM-
 BINED CYCLE SYSTEM
 07/23/1998 - 08/14/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: B LANDRUM
Tech. Officer: MSFC/J F DOWDY
CASE Category: 46 - MECHANICAL ENGR

NGT 8 52863 UNIVERSITY OF ALABAMA - HUNTSVILLE 1277
 DETERMINATION OF H FROM THE INTERFEROMETRIC OBSERVATIONS OF
 THE SUNYAEV-DEL DOVICH EFFECT
 07/24/1998 - 08/13/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J V PARADIJS
Tech. Officer: MSFC/J F DOWDY
CASE Category: 13 - PHYSICS

NGT 8 52874 UNIVERSITY OF ALABAMA - HUNTSVILLE 1278
 1999 SUMMER FACULTY FELLOWSHIP PROGRAM
 04/12/1999 - 12/31/1999 FY99: \$879,309 Total: \$879,309
Prin. Invest.: G R KARR
Tech. Officer: MSFC/J F DOWDY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52878 UNIVERSITY OF ALABAMA - HUNTSVILLE 1279
 ION CYCLOTRON RESONANCE HEATING OF A PLASMA BY HELICON WAVES
 FOR THE GASDYNAMICMIRROR FUSION...
 08/31/1999 - 08/11/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: C HAWK
Tech. Officer: MSFC/J DOWDY
CASE Category: 46 - MECHANICAL ENGR

NGT 8 52882 UNIVERSITY OF ALABAMA - HUNTSVILLE 1280
 GRADUATE STUDENT RESEARCH PROGRAM "OPTIMIZATION OF A MAG-
 NETIC MIRROR FUSION REACTOR FOR SPACE PROPUL
 09/15/1999 - 09/14/2002 FY99: \$22,000 Total: \$22,000
Prin. Invest.: S WU
Tech. Officer: MSFC/J DOWDY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1290 UNIVERSITY OF ALABAMA - UNIVERSITY 1281
 AUTOMATED MINING OF AVIATION ACCIDENT DATABASES USING CARE
 TECHNOLOGY
 02/01/1999 - 09/30/1999 FY99: \$74,401 Total: \$74,401
Prin. Invest.: D B BROWN, A S PARRISH, B D DIXON
Tech. Officer: ARC/I C STATLER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2004 UNIVERSITY OF ALABAMA - UNIVERSITY 1282
 INTELLIGENT ENGINE CONTROL
 01/10/1997 - 09/30/2000 FY99: \$70,000 Total: \$184,982
Prin. Invest.: K S KRISHNAKUMAR
Tech. Officer: GRC/J R SAUS
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 2574 UNIVERSITY OF ALABAMA - UNIVERSITY 1283
 ABUNDANCE GRADIENTS IN INTRACLUSTER GAS
 04/12/1994 - 09/30/1999 FY99: \$0 Total: \$73,909
Prin. Invest.: R E WHITE III
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2990 UNIVERSITY OF ALABAMA - UNIVERSITY 1284
 STAR FORMATION AND THE INTERSTELLAR MEDIUM IN SO GALAXIES
 USING ROSAT POINTED OB
 06/30/1995 - 07/14/1998 FY99: -\$4 Total: \$39,337
Prin. Invest.: P B ESKRIDGE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3336 UNIVERSITY OF ALABAMA - UNIVERSITY 1285
 DUST EMISSION AND ABSORPTION IN BACKLIT SPIRAL GAL AXIES
 08/09/1996 - 08/14/1999 FY99: \$1,363 Total: \$23,863
Prin. Invest.: W C KEEL
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4346 UNIVERSITY OF ALABAMA - UNIVERSITY 1286
 PROJECT NOVA
 05/01/1997 - 02/29/2000 FY99: \$1,000,000 Total: \$1,700,000
Prin. Invest.: M FREEMAN
Tech. Officer: HQ/D V GALLAWAY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6053 UNIVERSITY OF ALABAMA - UNIVERSITY 1287
 QUANTIFICATION OF NEUTRAL WIND VARIABILITY IN THE
 07/28/1997 - 01/31/2000 FY99: \$52,246 Total: \$154,136
Prin. Invest.: D RICHARD
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6174 UNIVERSITY OF ALABAMA - UNIVERSITY 1288
 NUMERICAL AND THEORETICAL STUDIES OF THE INITIATION OF CORONAL
 MASS EJECTIONS (CMES)
 08/05/1997 - 05/31/2000 FY99: \$63,178 Total: \$148,793
Prin. Invest.: D WU
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6314 UNIVERSITY OF ALABAMA - UNIVERSITY 1289
 FAR-WING LINE SHAPE: APPLICATION TO THE VENUSIAN
 09/11/1997 - 09/14/2000 FY99: \$0 Total: \$136,000
Prin. Invest.: D TIPPING
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6934 UNIVERSITY OF ALABAMA - UNIVERSITY 1290
 ASCA PROPOSAL - A SEARCH FOR HOT GAS IN MERGING CLUSTERS
 01/30/1998 - 01/14/2000 FY99: \$0 Total: \$26,000
Prin. Invest.: R E WHITE, II
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 7035 UNIVERSITY OF ALABAMA - UNIVERSITY 1291
 HIGH TIME-RESOLUTION ANALYSIS OF THE GRB LOW-ENERGY EXCESS
 WITH BATSE
 02/19/1998 - 02/14/1999 FY99: \$0 Total: \$33,400
Prin. Invest.: R D PREECE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7220 UNIVERSITY OF ALABAMA - UNIVERSITY 1292
 THE WARM PHASE OF THE INTRACLUSTER MEDIUM - A SYNOPSIS STUDY
 04/09/1998 - 04/14/2000 FY99: \$0 Total: \$10,240
Prin. Invest.: R LIEU
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 7380 UNIVERSITY OF ALABAMA - UNIVERSITY 1293
 XTE PROPOSAL - STUDY OF KHZ QPO IN Z SOURCES
 05/06/1998 - 06/30/2000 FY99: \$0 Total: \$4,114
Prin. Invest.: J PARADILS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7381 UNIVERSITY OF ALABAMA - UNIVERSITY 1294
 XTE PROPOSAL - MONITORING OBSERVATIONS OF GRO J1744-28
 05/06/1998 - 06/30/2000 FY99: \$0 Total: \$4,101
Prin. Invest.: J PARADILS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7702 UNIVERSITY OF ALABAMA - UNIVERSITY 1295
 ESTIMATE THE INDIRECT AEROSOL EFFECT AND RETRIEVAL OF RELATED
 PARAMETERS FROM SATELLITE MEASUREMENT
 09/23/1998 - 09/30/1999 FY99: \$0 Total: \$71,000
Prin. Invest.: Q HAN
Prin. Invest.: NONE
Tech. Officer: GSFC/M MISHCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8269 UNIVERSITY OF ALABAMA - UNIVERSITY 1296
 THEORETICAL CALCULATION OF CO2 FAR-WING LINE SHAPE S
 02/25/1999 - 12/31/2000 FY99: \$123,700 Total: \$123,700
Prin. Invest.: R H TIPPING
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8407 UNIVERSITY OF ALABAMA - UNIVERSITY 1297
 MODELING AND COMPARISON OF FE + OPTICAL BALMER LINES (LTS 98)
 03/15/1999 - 03/14/2000 FY99: \$3,145 Total: \$3,145
Prin. Invest.: J W SULENTIC
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 8 279 UNIVERSITY OF ALABAMA - UNIVERSITY 1298
 RESEARCH STUDY
 01/14/1993 - 03/31/1998 FY99: -\$7,409 Total: \$186,180
Prin. Invest.: K W WHITAKER, K S KRISHNAKUMAR
Tech. Officer: MSFC/W T POWERS, MSFC/A E COOPER
CASE Category: 13 - PHYSICS

NAG 8 1407 UNIVERSITY OF ALABAMA - UNIVERSITY 1299
 EMA CONTROLLER ARCHITECTURE SELECTION AND DESIGN
 09/05/1997 - 09/04/1998 FY99: \$0 Total: \$45,000
Prin. Invest.: T MASKEY, D SCHINSTOCK
Tech. Officer: MSFC/J R COWAN
CASE Category: 46 - MECHANICAL ENGR

NAG 8 1422 UNIVERSITY OF ALABAMA - UNIVERSITY 1300
 MULTIPLE YEAR GRANT FOR THE PURPOSE OF AEROELASTICITY IN
 MULTIDISCIPLINARY ANALYSIS AND DESIGN
 10/28/1997 - 10/31/1999 FY99: \$54,257 Total: \$105,945
Prin. Invest.: J A BRUNTY, N D HENDRIX
Tech. Officer: MSFC/J F MACPHERSON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 921 UNIVERSITY OF ALABAMA - UNIVERSITY 1301
 DEVELOP RISK IDENTIFICATION EXPERT SYSTEM FOR ISS
 12/16/1996 - 03/31/1998 FY99: \$0 Total: \$132,209
Prin. Invest.: G P MOYNIHAN
Tech. Officer: JSC/D K WILSON, JSC/F KUO
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 981 UNIVERSITY OF ALABAMA - UNIVERSITY 1302
 STRESS IN BONES DURING BED REST STUDIES
 11/25/1997 - 08/31/1998 FY99: -\$1 Total: \$15,499
Prin. Invest.: B A TODD
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 993 UNIVERSITY OF ALABAMA - UNIVERSITY 1303
 STOCHASTIC SIMULATION ON INTERSTAGE DYNAMICS-ISS
 02/27/1998 - 02/28/1999 FY99: \$0 Total: \$128,402
Prin. Invest.: G P MOYNIHAN, R G BATSON
Tech. Officer: JSC/D M SORLEAU, JSC/F KUO
CASE Category: 49 - ENGINEERING, OTHER

ALASKA

NASA'S UNIVERSITY PROGRAM

NAS 8 39715 UNIVERSITY OF ALABAMA - UNIVERSITY 1304
 PARTICLE INGULFMENT AND PUSHING BY SOLIDIFYING INTERFACES
 02/17/1993 - 12/31/1999 FY99: \$229,166 Total: \$1,087,173
Prin. Invest.: D M STEFANESCU, P A CURRERI, B K DHINDAW
Tech. Officer: MSFC/T DE LOACH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 4 52403 UNIVERSITY OF ALABAMA - UNIVERSITY 1305
 GENETICS-BASED ADAPTIVE AGENTS FOR STRATEGY LEARNING IN
 AEROSPACE APPLICATIONS
 07/16/1996 - 08/01/2000 FY99: \$0 Total: \$66,000
Prin. Invest.: R E SMITH
Tech. Officer: DFRG/K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50094 UNIVERSITY OF ALABAMA - UNIVERSITY 1306
 GRAVITY WAVE ENERGETICS DETERMINED FROM COINCIDENT GROUND-
 BASED OBSERVATIONS OF AIRGLOW EMISSIONS/ G
 08/26/1997 - 12/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: D HICKEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50129 UNIVERSITY OF ALABAMA - UNIVERSITY 1307
 DETERMINING LYMPHOCYTE RESPONSIVENESS TO LOW GRAVITY
 09/09/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M - LEWIS
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 8 52817 UNIVERSITY OF ALABAMA - UNIVERSITY 1308
 GRAD STUDENT RESEARCHERS PROGRAM
 07/25/1996 - 05/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: J S LANG
Tech. Officer: MSFC/C S CORNELIUS
CASE Category: 49 - ENGINEERING, OTHER

NGT 8 52819 UNIVERSITY OF ALABAMA - UNIVERSITY 1309
 "1996 SUMMER FACULTY FELLOWSHIP PROGRAM"
 07/24/1996 - 12/31/1999 FY99: \$0 Total: \$1,583,962
Prin. Invest.: L M FREEMAN
Tech. Officer: MSFC/F SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52835 UNIVERSITY OF ALABAMA - UNIVERSITY 1310
 GRADUATE STUDENT RESEARCHERS PROGRAM "FELLOWSHIP FOR
 MICHAEL W. TODD"
 11/14/1996 - 08/01/1999 FY99: -\$6,135 Total: \$37,865
Prin. Invest.: M W TODD
Tech. Officer: MSFC/J BILBRO
CASE Category: 46 - MECHANICAL ENGR

NAG13 58 UNIVERSITY OF NORTH ALABAMA 1311
 SMALL SPACECRAFT TECHNOLOGY INITIATIVE SAME
 09/12/1997 - 09/11/1998 FY99: -\$1,596 Total: \$23,280
Prin. Invest.: L KEYS-MATHEWS
Tech. Officer: SSC/V ZANONI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1911 UNIVERSITY OF SOUTH ALABAMA 1312
 INITIALIZATION AND SIMULATIONS OF THREE-DIMENSIONAL AIRCRAFT
 WAKE VORTICES
 03/19/1997 - 04/30/1999 FY99: \$10,153 Total: \$77,153
Prin. Invest.: Z C ZHENG
Tech. Officer: LARC/F H PROCTOR
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1050 UNIVERSITY OF SOUTH ALABAMA 1313
 SMART OPTICAL RAM FOR FAST INFORMATION MANAGEMENT & ANALYSIS
 06/06/1996 - 08/31/1998 FY99: \$0 Total: \$249,830
Prin. Invest.: H K LIU
Tech. Officer: ARC/C K GARY
CASE Category: 45 - ELECTRICAL ENGR

NAG 8 1397 UNIVERSITY OF SOUTH ALABAMA 1314
 R/S DEVELOPMENT OF COUNTERMEASURES & EXERCISE PROTOCOLS
 TO REDUCE THE EFFECT OF MICROGRAVITY
 07/23/1997 - 08/31/1999 FY99: \$11,000 Total: \$37,914
Prin. Invest.: P KULKARNI
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 161 UNIVERSITY OF SOUTH ALABAMA 1315
 REGIONAL/INTERNATIONAL CHANGE ASSESSMENT STRATEGIES,
 RESEARCH AND TECHNOLOGY
 01/19/1999 - 01/18/2004 FY99: \$15,233 Total: \$15,233
Prin. Invest.: M CARPENTER
Tech. Officer: MSFC/R ARNOLD
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

ALASKA

NAG 8 1282 UNIVERSITY OF ALASKA - ANCHORAGE 1316
 RESEARCH JOVE
 01/21/1997 - 08/31/1999 FY99: \$0 Total: \$52,369
Prin. Invest.: J A OLOFSSON
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCCW 42 UNIVERSITY OF ALASKA - ANCHORAGE 1317
 ALASKA TECHNOLOGY TRANSFER ASSISTANCE CENTER
 06/28/1994 - 06/30/1998 FY99: \$0 Total: \$321,000
Prin. Invest.: J FREDERICKS
Tech. Officer: HQ/J ROOT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30039 UNIVERSITY OF ALASKA - ANCHORAGE 1318
 SHALLOW LAKE PROCESSES AND METHANE FLUX TO THE ATM BREAK-UP
 OF HIGH LATITUDE LAKES
 10/17/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: K PETERSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4068 UNIVERSITY OF ALASKA - FAIRBANKS 1319
 SAR, INTERFEROMETRY, AND GLACIER DYNAMICS IN NW NORTH
 03/20/1997 - 02/28/2000 FY99: \$0 Total: \$189,380
Prin. Invest.: C LINGLE
Tech. Officer: GSFC/S H GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4170 UNIVERSITY OF ALASKA - FAIRBANKS 1320
 CLIMATE SENSITIVITY OF THAW LAKE SYSTEMS
 03/27/1997 - 12/31/1999 FY99: \$32,796 Total: \$113,343
Prin. Invest.: D JEFFRIES
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4269 UNIVERSITY OF ALASKA - FAIRBANKS 1321
 UNIQUE SIMULTANEOUS OBSERVATIONS OF THE CONJUGATE HEMI-
 SPHERES WITH THE DYNAMICS EXPLORER AND VIKING
 03/25/1997 - 05/14/2000 FY99: \$51,458 Total: \$99,987
Prin. Invest.: D D CRAVEN
Tech. Officer: GSFC/D EVANS
CASE Category: 13 - PHYSICS

NAG 5 4369 UNIVERSITY OF ALASKA - FAIRBANKS 1322
 DEFORMATION OF ALASKAN VOLCANOES MEASURED BY RADAR
 05/14/1997 - 04/30/1999 FY99: \$0 Total: \$79,918
Prin. Invest.: D FREYMUELLER
Tech. Officer: GSFC/S P GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4517 UNIVERSITY OF ALASKA - FAIRBANKS 1323
 OPTICAL SATELLITE REMOTE SENSING OF FOREST CANOPY THE SUB-
 ARCTIC LANDSCAPE
 07/03/1997 - 06/30/1998 FY99: \$0 Total: \$29,146
Prin. Invest.: D L VERBYLA
Tech. Officer: GSFC/D K HALL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4981 UNIVERSITY OF ALASKA - FAIRBANKS 1324
 ELEVATION CHANGES, INTERANNUAL VARIABILITY, AND AN DYNAMICS
 FROM ERS, GEOSTAT AND SEASAT RADA ALTIME
 07/18/1997 - 07/14/1999 FY99: \$0 Total: \$193,055
Prin. Invest.: C LINGLE
Tech. Officer: GSFC/S GOGINENI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5019 UNIVERSITY OF ALASKA - FAIRBANKS 1325
 VIDEO-IMAGING OF IONOSPHERIC-UPPER ATMOSPHERIC OPTICAL
 FLASHES FROM AIRCRAFT
 03/10/1994 - 05/31/2000 FY99: \$52,857 Total: \$1,944,112
Prin. Invest.: D D SENTMAN
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5097 UNIVERSITY OF ALASKA - FAIRBANKS 1326
 A CO-INVESTIGATOR PROPOSAL FOR THE CORNELL UNIVERSITY CAPER
 12/20/1996 - 06/30/1999 FY99: \$0 Total: \$91,599
Prin. Invest.: C DEEHR
Tech. Officer: GSFC/W GURKIN
CASE Category: 13 - PHYSICS

NAG 5 5125 UNIVERSITY OF ALASKA - FAIRBANKS 1327
 GROUND AND BALLOON-BORNE OBSERVATIONS OF RED SPRITES AND
 BLUE JETS
 07/02/1997 - 01/31/2000 FY99: \$119,800 Total: \$287,190
Prin. Invest.: E WESTCOTT
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5153 UNIVERSITY OF ALASKA - FAIRBANKS 1328
 AURORAL AIRCRAFT OBSERVATIONS CONJUGATE TO FAST FUNDING FOR
 BASIC GRANT
 01/14/1998 - 04/30/2000 FY99: \$71,171 Total: \$342,121
Prin. Invest.: H NIELSEN
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5218 UNIVERSITY OF ALASKA - FAIRBANKS 1329
 CODA: COUPLING OF DYNAMICS AND AURORA-A CO- INVESTIGATION
 PROPOSAL WITH AEROSPACE PI COLLINS
 01/15/1999 - 01/31/2000 FY99: \$13,797 Total: \$13,797
Prin. Invest.: COLLINS
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5243 UNIVERSITY OF ALASKA - FAIRBANKS 1330
 FIRST YEAR OF A TWO YEAR EFFORT NAG5-5243 PI DR. RICHARD COL-
 LINS
 03/29/1999 - 03/28/2001 FY99: \$17,224 Total: \$17,224
Prin. Invest.: R COLLINS
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6219 UNIVERSITY OF ALASKA - FAIRBANKS 1331
 PLASMA STRUCTURE AND PROCESSES AT THE MAGNETOSPHERE
 09/11/1997 - 05/14/1999 FY99: \$49,989 Total: \$122,898
Prin. Invest.: D OTTO
Tech. Officer: HQ/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6275 UNIVERSITY OF ALASKA - FAIRBANKS 1332
 THE ROLE OF LAND-COVER CHANGE IN HIGH LATITUDE ECO FOR THE
 GLOBAL CARBON CYCLE
 08/27/1997 - 02/14/2000 FY99: \$0 Total: \$463,125
Prin. Invest.: D MCGUIRE
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6338 UNIVERSITY OF ALASKA - FAIRBANKS 1333
 VALIDATION OF MODIS SNOW & SEA ICE PRODUCTS IN THE SOUTHERN
 OCEAN
 10/02/1997 - 09/30/2000 FY99: \$6,797 Total: \$225,384
Prin. Invest.: S LI
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6590 UNIVERSITY OF ALASKA - FAIRBANKS 1334
 ARCTIC-BOREAL CLIMATE FEEDBACKS: SYNTHESIS OF INFO RMATION
 FROM INTEGRATEINTEGRATED RESEARCH PROGRAM
 11/07/1997 - 11/14/1999 FY99: \$0 Total: \$37,500
Prin. Invest.: D CHAPIN, II
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6976 UNIVERSITY OF ALASKA - FAIRBANKS 1335
 COMBINED EFFECTS OF PHOTOELECTRONS, FIELD-ALIGNED CURRENTS,
 PRECIPITATION, THEPONDEROMOTIVE AND
 03/31/1998 - 03/31/2001 FY99: \$97,571 Total: \$143,705
Prin. Invest.: G V KHAZANOV
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7258 UNIVERSITY OF ALASKA - FAIRBANKS 1336
 MODELING OF THE ATMOSPHERIC-IONOSPHERE-MAGNETOSPHERE SYSTEM (MAMI)
 04/14/1998 - 10/14/1998 FY99: \$0 Total: \$75,000
Prin. Invest.: M H REES
Tech. Officer: GSFC/S CURTIS
CASE Category: 13 - PHYSICS

NAG 5 7299 UNIVERSITY OF ALASKA - FAIRBANKS 1337
 RADARSAT IN SUPPORT OF THE ANTARCTIC COASTAL POLYNIA PILOT STUDY
 04/24/1998 - 03/31/2000 FY99: \$0 Total: \$40,493
Prin. Invest.: M O JEFFRIES
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7507 UNIVERSITY OF ALASKA - FAIRBANKS 1338
 JERS-1 NORTH AMERICAN BOREAL FOREST MAPPING STUDY TASK PLAN
 UAF COMPONENT
 06/26/1998 - 06/30/2001 FY99: \$29,000 Total: \$84,000
Prin. Invest.: C L WILLIAMS
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7603 UNIVERSITY OF ALASKA - FAIRBANKS 1339
 THE INFLUENCE OF PROPAGATING EDDIES ON THE ENVIRONMENT OF
 THE CONTINENTAL SHELF IN THE NORTHERN G
 07/21/1998 - 07/31/2002 FY99: \$14,456 Total: \$27,956
Prin. Invest.: S R OKKONEN
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7659 UNIVERSITY OF ALASKA - FAIRBANKS 1340
 'SPACE GEODETIC CASE STUDIES OF RECENT VOLCANIC EVENTS IN
 ALASKA' SENH98-0028
 09/09/1998 - 02/29/2000 FY99: \$80,000 Total: \$120,000
Prin. Invest.: J T FREYMUELLER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7683 UNIVERSITY OF ALASKA - FAIRBANKS 1341
 MODELING OF THE ATMOSPHERE-MAGNETOSPHERE-IONOSPHERE SYSTEM
 BASELINE EFFORT
 09/15/1998 - 09/30/2000 FY99: \$162,506 Total: \$260,010
Prin. Invest.: M H REES
Tech. Officer: GSFC/S A CURTIS
CASE Category: 13 - PHYSICS

NAG 5 7799 UNIVERSITY OF ALASKA - FAIRBANKS 1342
 A STUDY OF THE INSTANTANEOUS DISTRIBUTION OF BIRK- LAND CUR-
 RENTS USING POLAR UVI, SUPERDARN, IMP8
 12/17/1998 - 09/30/1999 FY99: \$91,236 Total: \$91,236
Prin. Invest.: W A BRISTOW
Tech. Officer: GSFC/L ZANETTI
CASE Category: 11 - ASTRONOMY

NAG 5 8042 UNIVERSITY OF ALASKA - FAIRBANKS 1343
 THERMOSPHERIC NEUTRAL WIND RESPONSE TO THE AURORA AT HIGH
 RESOLUTION; SIMULTANEOUS GROUND-BASED AN
 01/07/1999 - 01/14/2000 FY99: \$58,510 Total: \$58,510
Prin. Invest.: J D CRAVEN
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 8112 UNIVERSITY OF ALASKA - FAIRBANKS 1344
 LARGE BODY IMPACT AND ITS PLANETARY IMPLICATIONS: VENUS, MOON,
 EARTH
 02/19/1999 - 02/29/2000 FY99: \$110,000 Total: \$110,000
Prin. Invest.: D L SHAPRTON
Tech. Officer: GSFC/J GRANT
CASE Category: 11 - ASTRONOMY

NAG 5 8549 UNIVERSITY OF ALASKA - FAIRBANKS 1345
 SUPPLEMENT TO RADARSAT SUPPORT OF THE ANTARCTIC COASTAL
 POLYNIA PILOT STUDY, SEA ICE SYMPOSIUM
 05/21/1999 - 06/30/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: M O JEFFRIES
Tech. Officer: GSFC/3 LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8614 UNIVERSITY OF ALASKA - FAIRBANKS 1346
 APPLICATION OF SATELLITE SAR IMAGERY IN MAPPING THE ACTIVE
 LAYER OF ARCTIC PERMAFROST
 06/14/1999 - 06/30/2000 FY99: \$51,035 Total: \$51,035
Prin. Invest.: S LI
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8722 UNIVERSITY OF ALASKA - FAIRBANKS 1347
 RUSSIAN-US PARTNERSHIP TO STUDY THE 23-KM-DIAMETER EL'GYGYT-
 GYN IMPACT CRATER, NORTHEAST RUSSIA
 08/25/1999 - 08/14/2000 FY99: \$24,000 Total: \$24,000
Prin. Invest.: V SHARPTON
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAGW 5205 UNIVERSITY OF ALASKA - FAIRBANKS 1348
 TEMPORAL AND SPATIAL SYNOPTIC VARIANCE OF SEA ICE IN THE RUS-
 SIAN ARCTIC AND THE CAUSATIVE PROCESSES
 10/03/1996 - 07/31/1998 FY99: \$0 Total: \$45,078
Prin. Invest.: D L JOHNSON
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 33 - OCEANOGRAPHY

NAS 3 26401 UNIVERSITY OF ALASKA - FAIRBANKS 1349
 ACTS PROPAGATION EXPERIMENTS IN ALASKA
 05/24/1993 - 03/31/2000 FY99: \$100,861 Total: \$880,652
Prin. Invest.: C E MAYER
Tech. Officer: GRC/R J GUNDERMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 5 32206 UNIVERSITY OF ALASKA - FAIRBANKS 1350
 MAINTENANCE/MISSION SUPPORT OF POKER FLAT RESEARCH RANGE
 10/31/1994 - 10/31/1999 FY99: \$1,439,800 Total: \$7,929,098
Prin. Invest.: S SCHWATAL
Tech. Officer: GSFC/M J FILLIS, GSFC/B J FLOWERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 32393 UNIVERSITY OF ALASKA - FAIRBANKS 1351
 OPERATION & MANAGEMENT OF ALASKA SYNTHETIC APERTURE RADAR FACILITY
 04/01/1993 - 04/01/1998 FY99: -\$66,834 Total: \$26,156,500
Prin. Invest.: G WELLER
Tech. Officer: GSFC/G HUNOLT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 97133 UNIVERSITY OF ALASKA - FAIRBANKS 1352
 HIGH-LATITUDE INTERCOMPARISON & VALIDATION EXPERIMENT
 09/15/1997 - 05/31/1999 FY99: \$73,136 Total: \$258,140
Prin. Invest.: D L ESLINGER
Tech. Officer: GSFC/C MCCLAIN, GSFC/D ENDERS
CASE Category: 33 - OCEANOGRAPHY

NAS 5 97138 UNIVERSITY OF ALASKA - FAIRBANKS 1353
 RESEARCH—NUMERICAL RADIATIVE TRANSFER MODELING EXPERIMENTS & ASSOC. ANALYSES
 09/23/1997 - 09/22/1999 FY99: \$96,996 Total: \$269,997
Prin. Invest.: K STAMNES
Tech. Officer: GSFC/C MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NAS 5 98129 UNIVERSITY OF ALASKA - FAIRBANKS 1354
 OPERATION & MANAGEMENT OF ALASKA SAR FACILITY
 03/30/1998 - 03/31/2003 FY99: \$5,902,881 Total: \$11,222,377
Prin. Invest.: N AVAILBLE
Tech. Officer: GSFC/P J ONDRUS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCA 5 112 UNIVERSITY OF ALASKA - FAIRBANKS 1355
 PROCESSING SYNTHETIC APERTURE RADAR DATA
 04/27/1988 - 01/31/2000 FY99: \$0 Total: \$19,710,886
Prin. Invest.: J MILLER, W F WEEKS, G WELLER
Tech. Officer: GSFC/G H TROFFORD
CASE Category: 11 - ASTRONOMY

NCC 5 89 UNIVERSITY OF ALASKA - FAIRBANKS 1356
 POSTSEISMIC DEFORMATION AFTER THE 1964 GREAT ALASKA EARTHQUAKE: COLLABORATIVE RESEARCH WITH GODD.
 05/05/1995 - 09/30/1998 FY99: \$0 Total: \$60,036
Prin. Invest.: J FREYMUELLER, M WYSS
Tech. Officer: GSFC/S C COHEN
CASE Category: 32 - GEOLOGICALSCIENCE

NCC 5 213 UNIVERSITY OF ALASKA - FAIRBANKS 1357
 MODIS/SNOW MAPPING: IN-SITU MEASUREMENTS ON THE S AND ARCTIC ALASKA
 06/27/1997 - 09/30/1998 FY99: \$0 Total: \$25,000
Prin. Invest.: C BENSON, NONE
Tech. Officer: GSFC/D HALL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 327 UNIVERSITY OF ALASKA - FAIRBANKS 1358
 CONDUCT RESEARCH IN THE ROLE OF SUPERTHEMAL ELECTRONS IN THE DYNAMICS OF HIGH LATITUDE IONOSPHERIC O
 04/24/1998 - 04/30/2000 FY99: \$28,000 Total: \$52,996
Prin. Invest.: G V KHAZANOV
Tech. Officer: GSFC/B L GILES
CASE Category: 19 - PHYSICALSCIENCE, OTHER

NCC 5 379 UNIVERSITY OF ALASKA - FAIRBANKS 1359
 MODIS/SNOW MAPPING: IN-SITU MEASUREMENTS ON THE S AND ARCTIC ALASKA
 01/29/1999 - 09/30/1999 FY99: \$15,000 Total: \$15,000
Prin. Invest.: C S BENSON
Tech. Officer: GSFC/S K HALL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40014 UNIVERSITY OF ALASKA - FAIRBANKS 1360
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM
 02/10/1997 - 02/28/2000 FY99: \$212,500 Total: \$595,000
Prin. Invest.: J G HAWKINS
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50191 UNIVERSITY OF ALASKA - FAIRBANKS 1361
 TIME-DEPENDENT TRANSPORT OF AURORAL ELECTRONS AND SMALL SCALE AURORAL ARCS/STUDENT: LAURA PETICOLA
 06/05/1998 - 06/30/2001 FY99: \$19,537 Total: \$41,537
Prin. Invest.: D LUMMERZHEIM
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 - PHYSICS

NAG 5 7629 UNIVERSITY OF NORTH CAROLINA AT WILMINGTON 1362
 REMOTE SENSING AND MARINE ECOLOGY AT THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON
 08/28/1998 - 07/31/2000 FY99: \$0 Total: \$29,580
Prin. Invest.: S D EMSLIE
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

ARIZONA

NAG 1 1082 ARIZONA STATE UNIVERSITY 1363
 ADVANCED ELECTROMAGNETIC METHODS FOR AEROSPACE VEHICLES
 12/15/1989 - 12/31/1999 FY99: \$0 Total: \$740,900
Prin. Invest.: C A BALANIS
Tech. Officer: LARC/G C BARBER, LARC/T G CAMPBELL
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1648 ARIZONA STATE UNIVERSITY 1364
 MODELING AND ANALYSIS OF COMPOSITE WING SECTIONS FOR IMPROVED AEROELASTIC AND VIBRATION
 10/28/1994 - 06/30/1998 FY99: -\$366 Total: \$87,979
Prin. Invest.: A CHATTOPADHYAY
Tech. Officer: LARC/J HEEG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1781 ARIZONA STATE UNIVERSITY 1365
 PENETRATION OF HIGH-INTENSITY RADIATED FIELDS INTO GENERAL AVIATION AIRCRAFT
 12/13/1995 - 12/31/2000 FY99: \$120,000 Total: \$497,095
Prin. Invest.: C BALANIS, P TIRKAS
Tech. Officer: LARC/K J MOELLER
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1925 ARIZONA STATE UNIVERSITY 1366
 SWEPT-WING RECEPTIVITY STUDIES USING DISTRIBUTED ROUGHNESS
 05/13/1997 - 10/31/1999 FY99: \$0 Total: \$144,284
Prin. Invest.: W S SARIC
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1988 ARIZONA STATE UNIVERSITY 1367
 DEVELOPMENT OF COMPREHENSIVE MODELING TECHNIQUES FOR SMART COMPOSITE STRUCTURES
 01/06/1998 - 01/14/2000 FY99: \$30,380 Total: \$72,380
Prin. Invest.: A CHATTOPADYAY
Tech. Officer: LARC/C D WIESEMAN, LARC/A R MCGOWAN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2233 ARIZONA STATE UNIVERSITY 1368
 DETERM & USE OF SENSITIVITIES FOR REDESIGN/ANAL OF MISTUNED BLADED DISKS - NRA 98-LARC-8
 09/27/1999 - 07/31/2002 FY99: \$23,069 Total: \$23,069
Prin. Invest.: M P MIGNOLET
Tech. Officer: LARC/P W GOODE
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 1 2241 ARIZONA STATE UNIVERSITY 1369
 USING FORMAL APPROACH FOR REVERSE ENGR'G & DESIGN RECOVERY TO SUPPORT SOFTWARE REUSE—NRA-98-LARC-8
 09/27/1999 - 08/30/2002 FY99: \$26,525 Total: \$26,525
Prin. Invest.: G C GANNOD *Prin. Invest.:* NONE
Tech. Officer: LARC/B L DI VITO
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 908 ARIZONA STATE UNIVERSITY 1370
 DEVELOPMENT OF A COMPOSITE TAILORING PROCEDURE FOR AIRPLANE WING
 06/15/1994 - 09/30/1999 FY99: \$0 Total: \$175,017
Prin. Invest.: A CHATTOPADHYAY
Tech. Officer: ARC/H MIURA, ARC/A SHAHN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 990 ARIZONA STATE UNIVERSITY 1371
 MULTIREOLUTION & EXPLICIT METHODS FOR VECTOR FIELD ANALYSIS & VISUALIZATION
 07/25/1995 - 06/30/1999 FY99: \$0 Total: \$278,637
Prin. Invest.: G M NIELSON
Tech. Officer: ARC/A VAZIRI, ARC/T A LASINSKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2081 ARIZONA STATE UNIVERSITY 1372
 DECOUPLING THE ROLE OF INERTIA & GRAVITY ON PARTICLE DISPERSION LSN000850-(NRA-94-OLMSA)
 09/26/1997 - 09/14/2000 FY99: \$8,708 Total: \$17,019
Prin. Invest.: K D SQUIRES
Tech. Officer: GRC/A CHAIT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3004 ARIZONA STATE UNIVERSITY 1373
 STUDIES OF MAGELLANIC CLOUD X-RAY SOURCES USING ROSAT AND HEOA-2 ARCHIVAL DATA
 07/14/1995 - 09/30/1997 FY99: \$0 Total: \$66,500
Prin. Invest.: A P COWLEY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3286 ARIZONA STATE UNIVERSITY 1374
 INVESTIGATING QPOS IN LMC X-1
 07/03/1996 - 10/31/1998 FY99: \$0 Total: \$26,800
Prin. Invest.: P SCHMIDTKE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3628 ARIZONA STATE UNIVERSITY 1375
 THERMAL-INFRARED LABORATORY STUDIES
 02/25/1997 - 12/31/1999 FY99: \$97,200 Total: \$287,381
Prin. Invest.: D R CHRISTENSEN
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3783 ARIZONA STATE UNIVERSITY 1376
 DETERMINING THE COMPOSITION OF MARTIAN AND VENUSIA
 02/21/1997 - 12/31/1999 FY99: \$73,000 Total: \$219,000
Prin. Invest.: D FINK
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3892 ARIZONA STATE UNIVERSITY 1377
 THEORETICAL STUDIES OF BINARY SYSTEMS CONTAINING C
 02/11/1997 - 01/14/2000 FY99: \$0 Total: \$41,294
Prin. Invest.: M POLITANO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3908 ARIZONA STATE UNIVERSITY 1378
 STUDIES IN PLANETARY VOLCANOLOGY
 02/12/1997 - 02/28/2000 FY99: \$248,200 Total: \$624,958
Prin. Invest.: D GREELEY
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3909 ARIZONA STATE UNIVERSITY 1379
 STUDIES OF MARTIAN AEOLIAN GEOLOGY
 02/12/1997 - 02/28/2000 FY99: \$91,000 Total: \$347,877
Prin. Invest.: R GREELEY
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4131 ARIZONA STATE UNIVERSITY 1380
 ORGANICS IN METEORITES
 03/15/1997 - 09/30/1999 FY99: \$115,000 Total: \$230,000
Prin. Invest.: D CRONIN
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4156 ARIZONA STATE UNIVERSITY 1381
 WINDBLOWN FEATURES ON VENUS AND GEOLOGIC MAPPING
 04/12/1997 - 04/30/1999 FY99: -\$2 Total: \$49,998
Prin. Invest.: D GREELEY
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4280 ARIZONA STATE UNIVERSITY 1382
 CHEMICAL CONSTRAINTS ON THE EARLY SOLAR NEBULA: MOLE ABUNDANCES IN CLOUDS, DISKS, AND COMETS
 04/30/1997 - 06/30/2000 FY99: \$45,000 Total: \$135,000
 Prin. Invest.: D WYCKOFF
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4296 ARIZONA STATE UNIVERSITY 1383
 MARS SURVEYOR LANDING SITE PROPOSAL: SCHIAPARELLI
 04/04/1997 - 03/31/1999 FY99: \$0 Total: \$31,400
 Prin. Invest.: M S EDGETT
 Tech. Officer: GSFC/J M BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4308 ARIZONA STATE UNIVERSITY 1384
 FINE-GRAINED MINERALS IN PRIMITIVE CHONDRITES: NEB PROCESSING
 04/16/1997 - 02/14/2000 FY99: \$132,625 Total: \$319,016
 Prin. Invest.: P R BUSECK
 Tech. Officer: GSFC/D NAVA
 CASE Category: 11 - ASTRONOMY

NAG 5 4439 ARIZONA STATE UNIVERSITY 1385
 MARS SURVEYOR PROGRAM LANDING SITE STUDY OF THE EL MARS
 04/25/1997 - 03/31/1998 FY99: -\$3,080 Total: \$10,320
 Prin. Invest.: D L GRAF
 Tech. Officer: GSFC/J M BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4533 ARIZONA STATE UNIVERSITY 1386
 VENUS AEROBOT SURFACE IMAGING SYSTEM (VASSIS)
 05/06/1997 - 05/31/1999 FY99: \$0 Total: \$32,000
 Prin. Invest.: D GREELEY
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4860 ARIZONA STATE UNIVERSITY 1387
 FOSSIL RECORD OF PRECAMBRIAN LIFE ON LAND
 06/19/1997 - 05/31/2000 FY99: \$81,913 Total: \$154,560
 Prin. Invest.: P KNAUTH
 Tech. Officer: GSFC/M A MEYER
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4892 ARIZONA STATE UNIVERSITY 1388
 ORGANIC SYNTHESIS IN ARTIFICIAL SMOKERS
 06/24/1997 - 10/31/1999 FY99: \$34,542 Total: \$149,483
 Prin. Invest.: D HOLLOWAY
 Tech. Officer: GSFC/M A MEYER
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 6108 ARIZONA STATE UNIVERSITY 1389
 MINERALOGICAL OXIDE AND SULFIDE MINERAL INDICATORS TIVITY
 07/24/1997 - 07/31/1999 FY99: \$0 Total: \$60,000
 Prin. Invest.: P R BUSECK
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 6740 ARIZONA STATE UNIVERSITY 1390
 A SYSTEMATIC STUDY OF GALAXY EVOLUTION WITH ARTIFICIAL NEURAL NETWORKS: A COMBINED ANALYSIS OF ASTR
 12/19/1997 - 12/31/1999 FY99: \$0 Total: \$50,156
 Prin. Invest.: R WINDHORST
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 6741 ARIZONA STATE UNIVERSITY 1391
 SYSTEMATIC DETERMINATIONS OF ELEMENTAL ABUNDANCES FOR GALACTIC AND LMC NOVAE
 12/19/1997 - 12/31/2000 FY99: \$72,400 Total: \$200,688
 Prin. Invest.: S STARRFIELD
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 6831 ARIZONA STATE UNIVERSITY 1392
 EVOLUTION OF PHOTOSYNTHESIS
 02/02/1998 - 09/30/1998 FY99: \$0 Total: \$75,000
 Prin. Invest.: R E BLANKENSHIP
 Tech. Officer: GSFC/M MEYER
 CASE Category: 11 - ASTRONOMY

NAG 5 7199 ARIZONA STATE UNIVERSITY 1393
 SEARCH FOR EXTRA-SOLAR PLANETS FROM SOUTHERN HEMISPHERE
 04/17/1998 - 04/14/2000 FY99: \$0 Total: \$40,000
 Prin. Invest.: P A WEHINGER
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 7285 ARIZONA STATE UNIVERSITY 1394
 MINERALOGY AND MICROSTRUCTURES OF SHOCK-INDUCED METAL VEINS IN CHONDRITES
 04/29/1998 - 04/30/2000 FY99: \$47,667 Total: \$81,000
 Prin. Invest.: T G SHARP
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 7540 ARIZONA STATE UNIVERSITY 1395
 INVESTIGATION OF NEBULAR PROCESSES THROUGH OXYGEN ISOTOPIC ANALYSIS OF PRIMITIVE METEORITE MATERIAL
 06/18/1998 - 03/31/2000 FY99: \$43,542 Total: \$61,100
 Prin. Invest.: L LESHIN
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 7573 ARIZONA STATE UNIVERSITY 1396
 MONITORING THE HAZARDS OF SILICIC VOLCANOES WITH REMOTE SENSING (SENH98-0092)
 07/28/1998 - 09/30/1999 FY99: \$25,001 Total: \$50,000
 Prin. Invest.: J H FINK
 Tech. Officer: GSFC/F V FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7640 ARIZONA STATE UNIVERSITY 1397
 ISOTOPIC CONSTRAINTS ON THE GENESIS OF CARBONATES IN MARTIAN METEORITE ALH84001
 09/23/1998 - 07/31/2000 FY99: \$26,250 Total: \$35,000
 Prin. Invest.: D A LESHIN
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8158 ARIZONA STATE UNIVERSITY 1398
 MICROBEAM INVESTIGATIONS OF PRESOLAR AND EARLY SOLAR SYSTEM MATERIALS
 02/04/1999 - 01/31/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: D R HUSS
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8173 ARIZONA STATE UNIVERSITY 1399
 PRESOLAR GRAINS AS TRACERS OF NEBULA PROCESSES
 02/03/1999 - 02/14/2000 FY99: \$20,000 Total: \$20,000
Prin. Invest.: D R HUSS
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8278 ARIZONA STATE UNIVERSITY 1400
 MULTIWAVELENGTH SPECTRAL SYNTHESIS OF NOV ATMOSPHERIC RES (ADP 98)
 02/24/1999 - 02/29/2000 FY99: \$43,692 Total: \$43,692
Prin. Invest.: S G STARRFIELD
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8286 ARIZONA STATE UNIVERSITY 1401
 ACQUISITION OF A CAMECA IMS 6F SECONDARY ION MASS SPECTROMETER FOR APPLICATIONS IN COSMOCHEMISTRY
 02/22/1999 - 02/29/2000 FY99: \$244,500 Total: \$244,500
Prin. Invest.: L A LESHIN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8453 ARIZONA STATE UNIVERSITY 1402
 ANALYSIS OF AEOLIAN FEATURES AND PROCESSES ON MARS
 04/14/1999 - 04/14/2000 FY99: \$80,000 Total: \$80,000
Prin. Invest.: R GREELEY
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8481 ARIZONA STATE UNIVERSITY 1403
 FORMATION & EVOLUTION OF BINARY SYSTEMS CONTAINING COLLAPSED STARS (ATP 98)
 04/29/1999 - 04/30/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: M POLITANO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8721 ARIZONA STATE UNIVERSITY 1404
 SMALL IMPACTS ON MARS: ATMOSPHERIC EFFECTS
 08/03/1999 - 08/14/2000 FY99: \$24,000 Total: \$24,000
Prin. Invest.: R GREELEY
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 8 1353 ARIZONA STATE UNIVERSITY 1405
 R/S "CRYSTALLIZATION MECHANISMS OF MEMBRANE PROTEINS UNDER THE DIRECTION OF DR. JAMES ALLEN"
 05/19/1997 - 11/30/2000 FY99: \$138,000 Total: \$353,000
Prin. Invest.: J ALLEN
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 815 ARIZONA STATE UNIVERSITY 1406
 DEVELOPE MICROFLOW BIOCHEMICAL SENSORS
 08/07/1995 - 08/30/1999 FY99: \$0 Total: \$568,000
Prin. Invest.: B TOWE
Tech. Officer: JSC/N R PELLIS
CASE Category: 49 - ENGINEERING, OTHER

NAGW 2241 ARIZONA STATE UNIVERSITY 1407
 NAGW-2241/ARIZONA STATE UNIV/COMETS AS PROBES OF A STAR-FORMING ENVIRONMENT
 05/23/1991 - 02/28/1998 FY99: \$0 Total: \$190,200
Prin. Invest.: S WYCOFF, NONE
Tech. Officer: HQ/J A NUTH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 5 31371 ARIZONA STATE UNIVERSITY 1408
 EOS INVESTIGATION "ADVANCED SPACEBORNE THERMAL EMISSION AND REFLECTION"
 12/23/1991 - 12/22/2001 FY99: \$262,000 Total: \$1,337,250
Prin. Invest.: P CHRISTENSEN
Tech. Officer: GSFC/H BLODGET
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 346 ARIZONA STATE UNIVERSITY 1409
 LABORATORY SIMULATIONS OF MARTIAN AND VENUSIAN AEOPROCESSES
 03/01/1985 - 12/31/1998 FY99: \$7,000 Total: \$1,520,686
Prin. Invest.: R GREELEY, J MARSHALL
Tech. Officer: ARC/R M HABERLE, ARC/B F SMITH
CASE Category: 32 - GEOLOGICAL SCIENCE

NCC 2 1051 ARIZONA STATE UNIVERSITY 1410
 EXPLORING THE LIVING UNIVERSE: ORIGIN, EVOLUTION AND DISTRIBUTION OF LIFE IN THE SOLAR SYSTEM
 09/22/1998 - 06/30/2003 FY99: \$702,500 Total: \$1,037,500
Prin. Invest.: J D FARMER
Tech. Officer: ARC/J N CUZZI
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 1109 ARIZONA STATE UNIVERSITY 1411
 OPERATION OF THE PLANETARY AEOLIAN LABORATORY
 04/02/1999 - 01/31/2000 FY99: \$81,523 Total: \$81,523
Prin. Invest.: R GREELEY
Tech. Officer: ARC/R M HABERLE, ARC/B F SMITH
CASE Category: 32 - GEOLOGICAL SCIENCE

NCC 2 5127 ARIZONA STATE UNIVERSITY 1412
 DEVELOPMENT OF CONTINUOUS AND DISCRETE APPROACHES FOR AERODYNAMIC SENSITIVITY ANALYSIS
 05/02/1995 - 04/30/1999 FY99: \$0 Total: \$80,000
Prin. Invest.: A CHATTOPADHYAY, J R NARAYAN
Tech. Officer: ARC/E TU
CASE Category: 46 - MECHANICAL ENGR

NCC 2 5267 ARIZONA STATE UNIVERSITY 1413
 MODELING & OPTIMIZATION OF ULTRAFAST SEMICONDUCTOR QUANTUM WELL DEVICES
 05/15/1998 - 12/31/1999 FY99: \$34,520 Total: \$134,640
Prin. Invest.: Y H ZHANG
Tech. Officer: ARC/S SAINI
CASE Category: 13 - PHYSICS

NCC 2 5282 ARIZONA STATE UNIVERSITY 1414
 AN ENHANCED MULTIOBJECTIVE OPTIMIZATION TECHNIQUE FOR COM-
 PREHENSIVE AEROSPACE DESIGN
 07/23/1998 – 01/14/2000 FY99: \$0 Total: \$20,000
Prin. Invest.: A CHATTOPADHYAY
Tech. Officer: ARC/S L LAWRENCE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 2 5331 ARIZONA STATE UNIVERSITY 1415
 MINIATURIZED BIONSENSOR BASED ON LIGHT EMITTING DIODE & PHOTO-
 DETECTOR ARRAY
 07/14/1999 – 11/30/1999 FY99: \$35,000 Total: \$35,000
Prin. Invest.: Y H ZHANG
Tech. Officer: ARC/M MEYAPPAN, ARC/T R GOVINDAN
CASE Category: 13 – PHYSICS

NGT 30347 ARIZONA STATE UNIVERSITY 1416
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/31/1995 – 10/31/1997 FY99: \$0 Total: \$44,000
Prin. Invest.: R I DOM
Tech. Officer: HQ/G ASRAR
CASE Category: 32 – GEOLOGICAL SCIENCE

NGT 2 52204 ARIZONA STATE UNIVERSITY 1417
 A NOVEL METHOD FOR REDUCING ROTOR BLADE-VORTEX INTERACTION
 NOISE
 09/14/1995 – 07/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: V L WELLS, A T GLINKA
Tech. Officer: ARC/F H SCHITZ
CASE Category: 41 – AERONAUTICAL ENGINEERING

NGT 5 22 ARIZONA STATE UNIVERSITY 1418
 ADAPTIVE FILTERING FOR HIGHER PIXEL DENSITY IN VOLUME
 HOLOGRAPHIC DATA STORAGE
 07/15/1996 – 12/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: J CAPONE
Tech. Officer: GSFC/G A SOFFEN, GSFC/D HOLLIS
CASE Category: 22 – COMPUTER SCIENCE

NGT 5 30007 ARIZONA STATE UNIVERSITY 1419
 VARIABILITY OF VOLATILE FLUX FROM VOLCANOES
 10/11/1996 – 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: S WILLIAMS
Tech. Officer: GSFC/G ASRAR
CASE Category: 32 – GEOLOGICAL SCIENCE

NGT 5 30092 ARIZONA STATE UNIVERSITY 1420
 GLACIAL CHRONOLOGY OF IZTACCIHUATL VOLCANO, CENTRAL OF ENVIRONMENTAL
 CHANGE IN THE BORDER OF THE TROPICS
 09/10/1997 – 08/31/1998 FY99: \$561 Total: \$21,439
Prin. Invest.: R I DORN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30221 ARIZONA STATE UNIVERSITY 1421
 EFFECTS OF TECTONIC PROCESSES AND CLIMATIC FLUCTUATIONS ON
 LANDSCAPE DEVELOPMENT
 08/26/1999 – 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J R ARROWSMITH
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCIENCE, OTHER

NGT 5 50077 ARIZONA STATE UNIVERSITY 1422
 INVESTIGATION OF AEOLIAN FEATURES USING RADAR DATA TS, & FIELD
 WORK
 08/26/1997 – 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: R GREELEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 9 21 ARIZONA STATE UNIVERSITY 1423
 VESTIBULAR INFO IN EYE HEAD HAND COORDINATION
 05/13/1997 – 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: R D SEIDLER
Tech. Officer: JSC/D G SICKCOREZ
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 2 6012 DINE COLLEGE (FORMERLY NAVAJO COMM COLLEGE) 1424
 THE AMERICAN INDIAN NETWORK INFORMATION CENTER
 07/24/1997 – 08/31/2000 FY99: \$133,295 Total: \$399,990
Prin. Invest.: A SAM
Tech. Officer: ARC/L K ALDERETE, ARC/G S LEE
CASE Category: 22 – COMPUTER SCIENCE

NAG 9 968 DINE COLLEGE (FORMERLY NAVAJO COMM COLLEGE) 1425
 STUDENT MATH & SCIENCE CAREERS INITIATIVES
 09/24/1997 – 09/30/1999 FY99: \$163,336 Total: \$392,312
Prin. Invest.: M C BAUER
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 9 1172 DINE COLLEGE (FORMERLY NAVAJO COMM COLLEGE) 1426
 SCIENCE ENRICHMENT ACTIVITIES
 09/28/1999 – 09/29/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: M C BAUER
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 49 – ENGINEERING, OTHER

NAG 13 99028 DINE COLLEGE (FORMERLY NAVAJO COMM COLLEGE) 1427
 EXPANDING THE POOL OF GIS PROFESSIONALS FOR THE NAVAJO NATION
 09/02/1999 – 09/01/2000 FY99: \$96,040 Total: \$96,040
Prin. Invest.: D ISELY
Tech. Officer: JSC/R TRAVIS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 2 6003 NORTHERN ARIZONA UNIVERSITY 1428
 PATHWAYS LEADING TO SUCCESS (PALS)
 08/29/1994 – 12/31/1999 FY99: \$58,808 Total: \$149,685
Prin. Invest.: G M BOYNE
Tech. Officer: ARC/A R GROSS
CASE Category: 49 – ENGINEERING, OTHER

NAG 5 4357 NORTHERN ARIZONA UNIVERSITY 1429
 AN INFRARED SPECTROSCOPIC SURVEY OF ICY GRAINS IN CIRCUMSTELLAR
 ENVIRONMENTS OF YOUNG STARS
 05/06/1997 – 02/28/2000 FY99: \$0 Total: \$30,000
Prin. Invest.: D TEGLER
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

ARIZONA

NASA'S UNIVERSITY PROGRAM

<p>NAG 5 4385 NORTHERN ARIZONA UNIVERSITY 1430 RESEARCH IN ORIGINS OF SOLAR SYSTEMS AT NAU 04/17/1997 - 04/14/1999 FY99: \$0 Total: \$70,080 Prin. Invest.: D L LUTZ Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY</p>	<p>NAG 5 8203 NORTHERN ARIZONA UNIVERSITY 1438 X-RAY PROCESSING OF COMETARY ICE MIXTURES 02/08/1999 - 01/31/2000 FY99: \$35,000 Total: \$35,000 Prin. Invest.: D M CORNELISON Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY</p>
<p>NAG 5 4852 NORTHERN ARIZONA UNIVERSITY 1431 INFRARED SPECTROSCOPY OF PLANETARY SATELLITES 07/14/1997 - 04/30/1999 FY99: \$0 Total: \$35,040 Prin. Invest.: D A GRIFFITH Tech. Officer: GSFC/W HUEBNER CASE Category: 11 - ASTRONOMY</p>	<p>NAG 5 8525 NORTHERN ARIZONA UNIVERSITY 1439 FROM GIANT PLANETS TO COOL STARS 05/13/1999 - 04/30/2000 FY99: \$12,875 Total: \$12,875 Prin. Invest.: C GRIFFITH Tech. Officer: GSFC/J BERGSTALH CASE Category: 11 - ASTRONOMY</p>
<p>NAG 5 4942 NORTHERN ARIZONA UNIVERSITY 1432 GIS IN THE CENTRAL VALLES MARINERIS, MARS 06/23/1997 - 09/30/1999 FY99: \$0 Total: \$43,270 Prin. Invest.: D K LUCCHITTA Tech. Officer: GSFC/P ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE</p>	<p>NCC 2 5356 NORTHERN ARIZONA UNIVERSITY 1440 STUDY OF THE HOST ROCKS OF CARBONACEOUS MATTER FROM IMPACT DEPOSITS, METEORITES & EXPERIMENTAL PROD 09/29/1999 - 09/30/2000 FY99: \$18,000 Total: \$18,000 Prin. Invest.: J H WITKE Tech. Officer: ARC/M L FONDA, ARC/T E BUNCH CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>
<p>NAG 5 4995 NORTHERN ARIZONA UNIVERSITY 1433 MARS FLUIDIZED EJECTA CRATER STUDIES 07/23/1997 - 07/14/2000 FY99: \$21,900 Total: \$42,800 Prin. Invest.: D BARNES Tech. Officer: GSFC/J BERGSTALH CASE Category: 11 - ASTRONOMY</p>	<p>NGT 5 90080 NORTHERN ARIZONA UNIVERSITY 1441 NATIVE AMERICAN SCIENCE AND ENGINEERING ADVANCEMENT PRO- GRAM 02/17/1998 - 06/30/1999 FY99: \$0 Total: \$50,000 Prin. Invest.: G M BOYNE Tech. Officer: GSFC/P SAKIMOTO CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p>NAG 5 6790 NORTHERN ARIZONA UNIVERSITY 1434 INFRARED SPECTROSCOPY OF PLANETARY SATELLITES 02/10/1998 - 02/14/2000 FY99: \$56,622 Total: \$111,990 Prin. Invest.: C A GRIFFITH Tech. Officer: GSFC/T MORGAN CASE Category: 11 - ASTRONOMY</p>	<p>NAG 2 1207 PRESCOTT COLLEGE 1442 MULTI-YEAR NASA GRANT TO SUPPORT THE OSTP/USGCRP NATIONAL ASSESSMENT PROGRAM 04/30/1998 - 01/31/2000 FY99: \$320,614 Total: \$720,879 Prin. Invest.: W W ORR Tech. Officer: ARC/G A SHELTON CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p>NAG 5 7210 NORTHERN ARIZONA UNIVERSITY 1435 A PHOTOMETRIC SURVEY OF TRANS-NEPTUNIAN OBJECTS 03/26/1998 - 02/28/2000 FY99: \$0 Total: \$28,000 Prin. Invest.: S TEGLER Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY</p>	<p>NAG 1 1652 UNIVERSITY OF ARIZONA 1443 DEVELOPMENT OF A METHODOLOGY FOR PREDICTING THE RESIDUAL STRENGTH OF AIRCRAFT STRUCTURES 12/07/1994 - 09/30/1998 FY99: -\$11 Total: \$298,554 Prin. Invest.: E MADENCI Tech. Officer: LARC/J H STARNES, LARC/V O BRITT CASE Category: 41 - AERONAUTICAL ENGR</p>
<p>NAG 5 7757 NORTHERN ARIZONA UNIVERSITY 1436 A PHOTOMETRIC SURVEY OF TRANS-NEPTUNIAN OBJECTS 12/07/1998 - 09/30/1999 FY99: \$43,700 Total: \$43,700 Prin. Invest.: S C TEGLER Tech. Officer: GSFC/T MORGAN CASE Category: 11 - ASTRONOMY</p>	<p>NAG 1 1731 UNIVERSITY OF ARIZONA 1444 ANISOPARAMETRIC NONLINEAR BEAM AND SHELL ELEMENTS MY 1/3 05/26/1995 - 10/31/1998 FY99: -\$1 Total: \$116,319 Prin. Invest.: E MADENCI Tech. Officer: LARC/L TESSLER CASE Category: 41 - AERONAUTICAL ENGR</p>
<p>NAG 5 8146 NORTHERN ARIZONA UNIVERSITY 1437 SPECTROSCOPIC INVESTIGATIONS OF EXTRASOLAR PLANETS AND BROWN DWARFS 02/04/1999 - 09/30/2000 FY99: \$30,000 Total: \$30,000 Prin. Invest.: C A GRIFFITH Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY</p>	<p>NAG 1 1825 UNIVERSITY OF ARIZONA 1445 IN-SITU RESOURCE UTILIZATION FOR ECONOMICAL SPACE MISSIONS - GRANT TRANSFER FROM NASA HQ 05/20/1996 - 07/31/1998 FY99: -\$7 Total: \$67,603 Prin. Invest.: K RAMONHALLI, J LEWIS Tech. Officer: LARC/J B HALL, JR. CASE Category: 41 - AERONAUTICAL ENGR</p>

NAG 1 2023 UNIVERSITY OF ARIZONA 1446
 SATELLITE DATA STUDIES OF STRATOSPHERIC OZONE MY 1/3
 03/18/1998 – 02/28/2001 FY99: \$83,000 Total: \$181,714
 Prin. Invest.: L L HOOD
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
 CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 2041 UNIVERSITY OF ARIZONA 1447
 DEVELOPMENT OF ANALYSIS METHODS FOR DESIGNING WITH COM-
 PONENTS
 03/31/1998 – 03/31/2000 FY99: \$162,000 Total: \$237,929
 Prin. Invest.: E MADENCI
 Tech. Officer: LARC/J H STARNES, LARC/D R AMBUR
 CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2052 UNIVERSITY OF ARIZONA 1448
 BOLTED DOUBLE-LAP JOINTS W/SANDWICH PANELS & LAMINATES UNDER
 MECH & THERMAL LOADING
 04/08/1998 – 04/07/2000 FY99: \$79,267 Total: \$155,175
 Prin. Invest.: E MADENCI
 Tech. Officer: LARC/S P WALKER
 CASE Category: 46 – MECHANICAL ENGR

NAG 1 2218 UNIVERSITY OF ARIZONA 1449
 IMPROVEMENT AND REFINEMENT OF THE GPS/MET DATA ANALYSIS ALGO-
 RITHM
 08/10/1999 – 07/31/2001 FY99: \$32,000 Total: \$32,000
 Prin. Invest.: B M HERMAN, D S FENG
 Tech. Officer: LARC/V E DELNORE, LARC/J L RAPER
 CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 949 UNIVERSITY OF ARIZONA 1450
 ENSEMBLE NEURAL CODING OF PLACE & DIRECTION IN ZER O-G
 12/20/1994 – 11/30/1999 FY99: \$84,182 Total: \$1,098,169
 Prin. Invest.: B L MCNAUGHTON
 Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
 CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 2 1046 UNIVERSITY OF ARIZONA 1451
 THE USE OF COMPOSITE TAILORING FOR OPTIMAL TILE-RO TOR BLADE
 DESIGN
 05/17/1996 – 09/30/1998 FY99: \$0 Total: \$28,007
 Prin. Invest.: P CHATTOPADHYAY
 Tech. Officer: ARC/S KOTTAPALLI
 CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1090 UNIVERSITY OF ARIZONA 1452
 A FAR INFRARED CAMERA FOR SOFIA
 10/25/1996 – 08/31/1999 FY99: \$0 Total: \$116,409
 Prin. Invest.: E T YOUNG, G H RIEKE
 Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
 CASE Category: 11 – ASTRONOMY

NAG 2 1187 UNIVERSITY OF ARIZONA 1453
 INFLUENCE OF UNWEIGHTING ON INSULIN SIGNAL TRANSDU CTION IN
 MUSCLE
 03/18/1998 – 09/30/1999 FY99: \$135,631 Total: \$173,631
 Prin. Invest.: M E TISCHLER, E J HENRIKSEN
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 2 1369 UNIVERSITY OF ARIZONA 1454
 EFFECT OF MICROGRAVITY ON THE DEVELOPMENT OF THE IMMUNE SYS-
 TEM
 08/02/1999 – 12/31/1999 FY99: \$92,671 Total: \$92,671
 Prin. Invest.: D DELUCA
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 3 1869 UNIVERSITY OF ARIZONA 1455
 AN EXPERIMENTAL STUDY OF RICHTMYER
 05/09/1996 – 05/08/2000 FY99: \$100,000 Total: \$414,000
 Prin. Invest.: J JACOBS
 Tech. Officer: GRC/A T CHAI
 CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 3 2154 UNIVERSITY OF ARIZONA 1456
 MODELING OF TRANSPORT PROCESSES IN A SOLID OXIDE E LECTROIZED
 GENERATING OXYGEN ON MARS
 04/10/1998 – 01/31/2002 FY99: \$50,000 Total: \$100,000
 Prin. Invest.: K R SRIDHAR
 Tech. Officer: GRC/J S LING, GRC/B S SINGH
 CASE Category: 13 – PHYSICS

NAG 5 637 UNIVERSITY OF ARIZONA 1457
 EUV SPECTRAL IMAGER
 07/11/1986 – 09/30/1999 FY99: \$150,000 Total: \$1,411,282
 Prin. Invest.: A L BROADFOOT
 Tech. Officer: GSFC/L JEARLY, GSFC/R H PLESS
 CASE Category: 13 – PHYSICS

NAG 5 1496 UNIVERSITY OF ARIZONA 1458
 INVESTIGATION OF BACKSCATTERED ALBEDOS AS MEASURED BY THE
 TOMS INSTRUMENT
 03/13/1991 – 03/31/1999 FY99: \$8,432 Total: \$844,608
 Prin. Invest.: B M HERMAN
 Tech. Officer: GSFC/R D MCPETERS, GSFC/R S STOLARSKI
 CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2251 UNIVERSITY OF ARIZONA 1459
 THE PHYSICAL FOUNDATIONS OF PARTICLE ACCELERATION BY COLLI-
 SIONLESS SHOCKS IN SPACE
 04/27/1993 – 04/30/1999 FY99: \$0 Total: \$472,426
 Prin. Invest.: J R JOKIPII
 Tech. Officer: GSFC/J M GREBOWSWKY, GSFC/J D BOHLIN
 CASE Category: 13 – PHYSICS

NAG 5 2367 UNIVERSITY OF ARIZONA 1460
 STUDIES IN SUPPORT OF REMOTE SENSING GAMMA-RAY
 09/22/1993 – 09/30/1997 FY99: -\$819 Total: \$34,263
 Prin. Invest.: W V BOYNTON
 Tech. Officer: GSFC/J I TROMBKA
 CASE Category: 11 – ASTRONOMY

NAG 5 2642 UNIVERSITY OF ARIZONA 1461
 INTEGRATED 12 MICRON EMISSION FROM DWARF SPHEROIDAL GALAXIES
 07/05/1994 – 07/14/1998 FY99: -\$5,741 Total: \$14,259
 Prin. Invest.: E W OLSZEWSKI
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 – ASTRONOMY

NAG 5 2738 UNIVERSITY OF ARIZONA 1462
 HIGH SIGNAL-TO-NOISE ECHELLE IUE SPECTRA OF WHITE DWARFS &
 CONTINUED OPERATION FOR UVS ARCHIVE
 09/30/1994 - 02/28/1998 FY99: -\$9 Total: \$166,322
Prin. Invest.: J B HOLBERG
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2798 UNIVERSITY OF ARIZONA 1463
 PHYSICS OF SUPERNOVAE
 11/21/1994 - 08/31/1998 FY99: -\$38 Total: \$472,587
Prin. Invest.: W D ARNETT
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2817 UNIVERSITY OF ARIZONA 1464
 AN INTEGRATED STUDY OF M DWARFS AND BROWN DWARFS
 12/08/1994 - 12/14/1998 FY99: -\$11 Total: \$299,989
Prin. Invest.: A S BURROWS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2901 UNIVERSITY OF ARIZONA 1465
 THE CORONAE OF LOW MASS DWARF STARS
 03/02/1995 - 12/31/1997 FY99: -\$28 Total: \$12,524
Prin. Invest.: J W LIEBERT
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 2962 UNIVERSITY OF ARIZONA 1466
 X-RAY SPECTRUM OF THE HIGH REDSHIFT QUASAR B1422+ 23
 06/09/1995 - 06/14/2000 FY99: \$0 Total: \$54,941
Prin. Invest.: J BECHTOLD
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3018 UNIVERSITY OF ARIZONA 1467
 ORIGIN AND SIGNIFICANCE OF THE EOCENE ROCKY MOUNTAIN EROSION
 SURFACE
 07/21/1995 - 07/31/1999 FY99: \$0 Total: \$185,951
Prin. Invest.: C G CHASE
Tech. Officer: GSFC/H V FREY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3042 UNIVERSITY OF ARIZONA 1468
 HUBBLE SPACE TELESCOPE (HST) NEAR-INFRARED CAMERA AND MULTI-
 OBJECT SPECTROMETER(NICMOS) GUARANTEED..
 08/03/1995 - 09/30/1999 FY99: \$0 Total: \$11,243,370
Prin. Invest.: D I THOMPSON
Tech. Officer: GSFC/E O RUITBERG
CASE Category: 11 - ASTRONOMY

NAG 5 3068 UNIVERSITY OF ARIZONA 1469
 STUDIES OF CLASSICAL NOVAE: CONFRONTATION OF THEORY WITH
 OBSERVATIONS
 09/05/1995 - 09/14/1999 FY99: \$0 Total: \$85,749
Prin. Invest.: S G STARRFIELD
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3075 UNIVERSITY OF ARIZONA 1470
 HIGH-ENERGY SPECTRAL CHARACTERISTICS OF GALACTIC BLACK HOLE
 SYSTEMS
 09/25/1995 - 09/30/1998 FY99: \$0 Total: \$195,000
Prin. Invest.: F MELLA
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3238 UNIVERSITY OF ARIZONA 1471
 X-RAY STUDIES OF THE NEARBY STARS
 05/28/1996 - 05/31/1999 FY99: \$0 Total: \$214,600
Prin. Invest.: T FLEMMING
Tech. Officer: GSFC/D WEST
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 3323 UNIVERSITY OF ARIZONA 1472
 DEVELOPMENT OF A METROLOGY CELL TO TEST ULTRA-LIGHT WEIGHT
 SHELL MIRRORS
 07/29/1996 - 09/30/1999 FY99: \$0 Total: \$50,036
Prin. Invest.: R ANGEL
Tech. Officer: GSFC/B SEERY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3359 UNIVERSITY OF ARIZONA 1473
 ISO DATA REDUCTION AND ANALYSIS
 08/28/1996 - 09/30/1999 FY99: \$0 Total: \$592,700
Prin. Invest.: M RIEKE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3400 UNIVERSITY OF ARIZONA 1474
 ANALYSIS, PUBLICATION AND ARCHIVING OF GAMMA-RAY BURST DATA
 FROM INTERPLANETARY NETWORK
 09/12/1996 - 09/14/1998 FY99: -\$464 Total: \$33,036
Prin. Invest.: J G LAROS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3436 UNIVERSITY OF ARIZONA 1475
 ABSOLUTE RADIOMETRIC CALIBRATION AND ATMOSPHERIC CORRECTION
 OF LANDSAT-7 THEMATIC MAPPER.
 10/07/1996 - 10/31/1999 FY99: \$161,000 Total: \$487,862
Prin. Invest.: C J THOME
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3472 UNIVERSITY OF ARIZONA 1476
 THE ANALYSIS OF IUE NEWSIPS ECHELLE DATA ON WHITE
 10/31/1996 - 10/31/1998 FY99: -\$41 Total: \$94,959
Prin. Invest.: J B HOLBERG
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3492 UNIVERSITY OF ARIZONA 1477
 REMOTE SENSING SOIL MOISTURE USING FOUR DIMENSION
 12/02/1996 - 03/31/1999 FY99: \$0 Total: \$157,999
Prin. Invest.: J SHUTTLEWORTH
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3630 UNIVERSITY OF ARIZONA 1478
 PLANETARY GEOMORPHOLOGY
 02/12/1997 - 11/30/1999 FY99: \$29,000 Total: \$100,251
Prin. Invest.: V R BAKER
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3631 UNIVERSITY OF ARIZONA 1479
 PLANET FORMATION AND EVOLUTION: COLLISIONAL AND
 02/12/1997 - 09/30/1999 FY99: \$86,200 Total: \$258,600
Prin. Invest.: R GREENBERG
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3632 UNIVERSITY OF ARIZONA 1480
 COPERNICAN CRATERS AND THE PHANEROZOIC IMPACT FLUX
 02/12/1997 - 01/31/2000 FY99: \$62,900 Total: \$146,700
Prin. Invest.: A MCEWEN
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3640 UNIVERSITY OF ARIZONA 1481
 UTILIZATION OF EOS DATA IN QUANTIFYING THE PROCESS HYDROLOGIC
 CYCLE IN ARID/SEMI-ARID REGIONS
 02/12/1997 - 03/31/2000 FY99: \$590,157 Total: \$1,937,302
Prin. Invest.: S SOROOSHAIN
Tech. Officer: GSFC/E Y WOOD
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3691 UNIVERSITY OF ARIZONA 1482
 MULTIWAVELENGTH STUDY OF HIGH REDSHIFT QUASARS
 01/24/1997 - 01/31/1998 FY99: -\$240 Total: \$22,560
Prin. Invest.: J BECHTOLD
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3777 UNIVERSITY OF ARIZONA 1483
 STUDIES OF MIDDLE ATMOSPHERIC RADIATIVE, PHOTOCHEM PROCESSES
 USING SATELLITE DATA
 02/13/1997 - 02/28/1998 FY99: -\$3 Total: \$75,795
Prin. Invest.: L L HOOD
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3785 UNIVERSITY OF ARIZONA 1484
 SUB-MILLIMETER SPECTROSCOPY OF ASTROPHYSICALLY-IMP G MOL-
 ECULES
 03/28/1997 - 11/30/1999 FY99: \$28,000 Total: \$168,000
Prin. Invest.: D M ZIURY
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 3791 UNIVERSITY OF ARIZONA 1485
 A STUDY OF DUST JET EVOLUTION IN COMET HALLEY
 03/07/1997 - 02/28/2000 FY99: \$56,434 Total: \$119,004
Prin. Invest.: M M LARSON
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3796 UNIVERSITY OF ARIZONA 1486
 RELATIVE ABUNDANCES OF ¹³C, ¹⁸O, ¹⁵N AND ²H ON TRI B MEA-
 SUREMENTS AND REFLECTANCE SPECTROSCOPY
 03/11/1997 - 03/14/2000 FY99: \$85,100 Total: \$255,300
Prin. Invest.: D H BROWN
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3837 UNIVERSITY OF ARIZONA 1487
 IN-SITU RESOURCE UTILIZATION FOR ECONOMICAL SPACE
 02/19/1997 - 05/31/1999 FY99: \$0 Total: \$36,527
Prin. Invest.: K RAMOHALLI
Tech. Officer: GSFC/R AVANT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3854 UNIVERSITY OF ARIZONA 1488
 THE AGGREGATE REPRESENTATION OF TERRESTRIAL LAND C CLIMATE
 MODELS
 12/20/1996 - 06/30/1999 FY99: \$0 Total: \$458,960
Prin. Invest.: W SHUTTLEWORTH
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3914 UNIVERSITY OF ARIZONA 1489
 SUPPORT FOR THE SPACE IMAGERY CENTER
 02/21/1997 - 09/30/1999 FY99: \$17,800 Total: \$61,601
Prin. Invest.: R G STROM
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3937 UNIVERSITY OF ARIZONA 1490
 PLANETARY SPECTROSCOPY
 03/26/1997 - 11/30/1999 FY99: \$49,280 Total: \$267,280
Prin. Invest.: D FINK
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 3938 UNIVERSITY OF ARIZONA 1491
 BEGINNING RESEARCH WITH THE 1.8-METER SPACEWATCH T
 03/10/1997 - 11/30/2000 FY99: \$0 Total: \$387,660
Prin. Invest.: D GEHRELS
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 4001 UNIVERSITY OF ARIZONA 1492
 RAPID IDENTIFICATION OF PLANETARY RESOURCES FROM S
 03/06/1997 - 02/28/2000 FY99: \$126,999 Total: \$371,999
Prin. Invest.: D MERENYI
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4042 UNIVERSITY OF ARIZONA 1493
 STABILIZATION OF CCD QUANTUM EFFICIENCY IN THE ULT
 04/07/1997 - 03/14/2000 FY99: \$91,600 Total: \$273,248
Prin. Invest.: D P LESSER
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4049 UNIVERSITY OF ARIZONA 1494
 STUDIES OF COMETS AND NEAS
 02/25/1997 - 02/28/1999 FY99: \$0 Total: \$263,250
Prin. Invest.: S M LARSON
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 4051 UNIVERSITY OF ARIZONA 1495
 THEORETICAL STUDIES OF VOLATILE PROCESSES IN THE A SURFACES OF
 OUTER SOLAR SYSTEM BODIES
 02/25/1997 - 01/31/2000 FY99: \$60,000 Total: \$180,000
Prin. Invest.: J I LUNINE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4054 UNIVERSITY OF ARIZONA 1496
 GAMMA-RAY REMOTE SENSING AND IN-SITU SPECTROSCOPY EXPLORA-
 TION MISSION (PIDDP)
 03/11/1997 - 03/14/1998 FY99: -\$2,214 Total: \$12,786
Prin. Invest.: W V BOYNTON
Tech. Officer: GSFC/J I TROMBKA
CASE Category: 13 - PHYSICS

NAG 5 4084 UNIVERSITY OF ARIZONA 1497
 GEOCHEMICAL EVOLUTION OF THE EARTH, MOON, IGNEOUS ERRESTRIAL
 PLANETARY BODIES
 03/10/1997 - 12/31/1999 FY99: \$220,000 Total: \$660,000
Prin. Invest.: D J DRAKE
Tech. Officer: HQ/J BOYCE
CASE Category: 12 - CHEMISTRY

NAG 5 4107 UNIVERSITY OF ARIZONA 1498
 IMPROVED DATA UTILIZATION FROM PIXELATED CDZNT E DE GAMMA-RAY
 ASTRONOMY
 04/24/1997 - 12/14/1998 FY99: \$0 Total: \$29,927
Prin. Invest.: H BARBER
Tech. Officer: HQ/J TUELLER
CASE Category: 11 - ASTRONOMY

NAG 5 4124 UNIVERSITY OF ARIZONA 1499
 SAR INVESTIGATIONS OF LATE PLEISTOCENE PALEOFLOODS PALEOCLI-
 MATES IN CENTRAL ASIA
 03/05/1997 - 01/31/2000 FY99: \$59,223 Total: \$173,865
Prin. Invest.: V R BAKER
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4142 UNIVERSITY OF ARIZONA 1500
 INFRARED EMISSION SPECTROSCOPY OF ASTROPHYSICAL MO
 04/22/1997 - 03/31/2000 FY99: \$106,250 Total: \$225,000
Prin. Invest.: D F BERNATH
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4149 UNIVERSITY OF ARIZONA 1501
 NUMERICAL STUDIES OF IMPACTS AND COLLISIONS
 03/15/1997 - 01/31/1999 FY99: -\$26,207 Total: \$13,753
Prin. Invest.: D BENZ
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4158 UNIVERSITY OF ARIZONA 1502
 ESCAPED ATMOSPHERIC GASES IN THE MAGNETOSPHERES OF URANUS
 03/11/1997 - 10/31/1999 FY99: \$67,402 Total: \$166,602
Prin. Invest.: D L HERBERT
Tech. Officer: GSFC/R BEEBE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4160 UNIVERSITY OF ARIZONA 1503
 OBSERVATIONS OF INNER-BELT C, E, AND M CLASS ASTER
 04/09/1997 - 12/31/1999 FY99: \$35,380 Total: \$106,340
Prin. Invest.: M T BRITT
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4161 UNIVERSITY OF ARIZONA 1504
 MARS THERMOSPHERE GENERAL CIRCULATION MODEL
 03/27/1997 - 03/31/1999 FY99: \$0 Total: \$145,000
Prin. Invest.: D W BOUGHER
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4166 UNIVERSITY OF ARIZONA 1505
 OBSERVATIONAL STUDIES OF PLANETARY ATMOSPHERES
 03/15/1997 - 03/14/2000 FY99: \$70,002 Total: \$180,006
Prin. Invest.: D M HUNTEN
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4213 UNIVERSITY OF ARIZONA 1506
 INFRARED OBSERVATIONS OF SOLAR SYSTEM OBJECTS
 03/19/1997 - 12/31/1998 FY99: \$0 Total: \$116,654
Prin. Invest.: D A LEBOWSKY
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 4214 UNIVERSITY OF ARIZONA 1507
 INTERIORS AND ATMOSPHERES OF THE OUTER PLANETS
 03/24/1997 - 12/31/1999 FY99: \$70,200 Total: \$198,200
Prin. Invest.: D B HUBBARD
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 4350 UNIVERSITY OF ARIZONA 1508
 OBSERVATIONS OF COMET HALE-BOPP
 04/17/1997 - 02/28/1999 FY99: \$0 Total: \$113,000
Prin. Invest.: M M LARSON
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 4380 UNIVERSITY OF ARIZONA 1509
 PHYSICS OF CIRCUMSTELLAR ACCRETION DISKS
 05/06/1997 - 02/28/1999 FY99: \$15,000 Total: \$89,988
Prin. Invest.: D BENZ
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4404 UNIVERSITY OF ARIZONA 1510
 X-RAY OBSERVATIONS OF THE HIGHEST-FIELD AM HER SYS
 05/05/1997 - 05/14/1998 FY99: -\$2 Total: \$5,089
Prin. Invest.: G D SCHMIDT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4451 UNIVERSITY OF ARIZONA 1511
 STUDIES IN PLANETARY RINGS
 05/08/1997 - 12/31/1999 FY99: \$50,000 Total: \$129,400
Prin. Invest.: D C PORCO
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4456 UNIVERSITY OF ARIZONA 1512
 HARNESSING SOLAR IRRADIANCE FOR SPACE LIFE SUPPORT
 05/23/1997 - 10/31/1998 FY99: -\$36 Total: \$132,798
Prin. Invest.: J L CUELLO
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4480 UNIVERSITY OF ARIZONA 1513
 EOS/IDS PROJECT TO INTERFACE CLIMATE MODELING ON G SCALES WITH
 EARTH OBSERVING SYSTEM (EOS) OBSERVAT
 05/09/1997 - 03/31/2000 FY99: \$450,000 Total: \$1,730,000
Prin. Invest.: R DICKINSON
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4559 UNIVERSITY OF ARIZONA 1514
 THEORY OF CHARGED-PARTICLE TRANSPORT AND ASTROPHYS
 06/02/1997 - 01/31/2001 FY99: \$30,000 Total: \$130,000
Prin. Invest.: J JOKIPII
Tech. Officer: GSFC/M A FORMAN
CASE Category: 13 - PHYSICS

NAG 5 4560 UNIVERSITY OF ARIZONA 1515
 IR OBSERVATIONS OF ICY SATELLITES IN THE OUTER SOL
 06/23/1997 - 09/30/1998 FY99: \$0 Total: \$82,369
Prin. Invest.: D H BROWN
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4598 UNIVERSITY OF ARIZONA 1516
 LONG TERM DOPPLER SHIFT AND LINE PROFILE STUDIES O TARGET
 STARS
 05/20/1997 - 02/28/2001 FY99: \$173,333 Total: \$410,967
Prin. Invest.: D S MCMILLAN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4667 UNIVERSITY OF ARIZONA 1517
 FORMATION OF LOW MASS STARS, BROWN DWARFS
 06/26/1997 - 06/30/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: P RIEKE
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4687 UNIVERSITY OF ARIZONA 1518
 INTERNATIONAL WORKSHOP ON DYNAMICS OF LAND-USE/LAN HINDU-
 KUSH HIMALAYA
 06/26/1997 - 05/31/1998 FY99: -\$1,514 Total: \$9,286
Prin. Invest.: L J GRAUMLICH
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4716 UNIVERSITY OF ARIZONA 1519
 COOLING HISTORY OF METEORITES: CONSTRAINTS FROM FE- TALLINE
 PARTITIONING AND INTERDIFFUSION KINETICS
 06/23/1997 - 01/31/1999 FY99: \$0 Total: \$60,000
Prin. Invest.: D GANGULY
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4767 UNIVERSITY OF ARIZONA 1520
 NOBLE GAS STUDIES OF EARLY SOLAR SYSTEM HISTORY
 06/09/1997 - 05/31/2000 FY99: \$73,667 Total: \$119,000
Prin. Invest.: D D SWINDLE
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4774 UNIVERSITY OF ARIZONA 1521
 HRI OBSERVATIONS OF HIGH REDSHIFT QUASARS
 06/18/1997 - 05/31/1999 FY99: \$0 Total: \$5,300
Prin. Invest.: J BECHTOLD
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4832 UNIVERSITY OF ARIZONA 1522
 COSMOGENIC 14C IN METEORITES AND LUNAR SAMPLES
 06/17/1997 - 05/31/2000 FY99: \$55,417 Total: \$105,000
Prin. Invest.: D JULI
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4834 UNIVERSITY OF ARIZONA 1523
 TRANSPORT EQUATIONS OF COSMIC RAYS
 06/17/1997 - 03/14/2001 FY99: \$68,750 Total: \$150,000
Prin. Invest.: M KOTA
Tech. Officer: GSFC/M A FORMAN
CASE Category: 11 - ASTRONOMY

NAG 5 4835 UNIVERSITY OF ARIZONA 1524
 MAGNETOHYDRODYNAMIC WAVE-WAVE INTERACTIONS IN THE
 06/17/1997 - 04/30/1998 FY99: -\$826 Total: \$32,174
Prin. Invest.: D M WEBB
Tech. Officer: GSFC/M A FORMAN
CASE Category: 11 - ASTRONOMY

NAG 5 4845 UNIVERSITY OF ARIZONA 1525
 GAS-GRAIN INTERACTIONS
 06/27/1997 - 10/31/1999 FY99: \$38,300 Total: \$75,900
Prin. Invest.: D L HOOD
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4944 UNIVERSITY OF ARIZONA 1526
 MINERALOGIC AND TRACE-ELEMENT STUDIES OF METEORITE IMPACTS
 06/23/1997 - 12/14/1999 FY99: \$170,000 Total: \$631,000
Prin. Invest.: D V BOYNTON
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4984 UNIVERSITY OF ARIZONA 1527
 MEASURING MARTIAN ATMOSPHERIC WATER VAPOR
 06/26/1997 - 03/14/2000 FY99: \$64,300 Total: \$192,901
Prin. Invest.: D L SPRAGUE
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 5031 UNIVERSITY OF ARIZONA 1528
 CONTINUOUS CHEMICAL ANALYSIS OF GREENLAND FIRN & ICE CORES
 FOR ESTIMATING ANNUAL ACCUMULATION
 03/28/1995 - 03/31/1998 FY99: -\$133 Total: \$252,237
Prin. Invest.: R C BALES
Tech. Officer: GSFC/W B KRABILL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5143 UNIVERSITY OF ARIZONA 1529
 A TWO-DIMENSIONAL IMAGING FUV SPECTROGRAPH
 06/23/1997 - 10/31/1999 FY99: \$173,939 Total: \$672,989
Prin. Invest.: J HOLBERG
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5180 UNIVERSITY OF ARIZONA 1530
 COSMIC RAY TRANSPORT AND WAVES IN ASTROPHYSICAL PLASMAS
 03/09/1998 - 12/31/1999 FY99: \$40,000 Total: \$80,000
Prin. Invest.: G M WEBB
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6070 UNIVERSITY OF ARIZONA 1531
 PROPOSAL TITLE "INVESTIGATION OF SIGNAL AND IMAGE FOR CLOUD
 DETECTION BY GROUND-BASED AND SPACEBORNE
 07/28/1997 - 06/30/1999 FY99: \$0 Total: \$101,713
Prin. Invest.: J REAGAN
Tech. Officer: GSFC/A NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6184 UNIVERSITY OF ARIZONA 1532
 SUBSURFACE LIQUID WATER ON MARS: EVIDENCE FROM CR AND EXO-
 BIOLOGICAL IMPLICATIONS/PRESIDENTIAL EARLY
 07/30/1997 - 12/31/1999 FY99: \$0 Total: \$131,860
Prin. Invest.: D F CHYBA
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 6339 UNIVERSITY OF ARIZONA 1533
 VALIDATION AND CORRECTION FOR THE MODIS SPATIAL RE SPONSE
 10/02/1997 - 09/30/2000 FY99: \$11,883 Total: \$320,430
Prin. Invest.: R SCHOWENGERDT
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6362 UNIVERSITY OF ARIZONA 1534
 TOMOGRAPHIC ANALYSIS OF EXTREME ULTRAVIOLET OBSERVATIONS OF
 THE IO PLASMA
 10/24/1997 - 08/31/1999 FY99: \$46,750 Total: \$112,199
Prin. Invest.: F HERBERT
Tech. Officer: GSFC/D BOHLIN
CASE Category: 11 - ASTRONOMY

NAG 5 6418 UNIVERSITY OF ARIZONA 1535
 1. SOURCES OF OPACITY IN THE EUV SPECTRA OF DA WDS 2. EUVE OFHID-
 DEN WDCOMPANIONS TO 2 EARLY TYPE S
 12/02/1997 - 11/30/1998 FY99: -\$55 Total: \$34,145
Prin. Invest.: J B HOLBERG
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 6461 UNIVERSITY OF ARIZONA 1536
 LIS VALIDATION STUDIES USING LIGHTNING AT THE KSC- ER
 10/14/1997 - 09/30/2000 FY99: \$9,138 Total: \$234,698
Prin. Invest.: P KRIDER
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6542 UNIVERSITY OF ARIZONA 1537
 EARTH OBSERVATION RESOURCES INFRASTRUCTURE FOR INT EGRATED
 REGIONAL ASSESSMENTS IN THE SONORAN DESER
 10/24/1997 - 12/31/1999 FY99: \$35,016 Total: \$326,929
Prin. Invest.: R A SCHOWENGERDT
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6543 UNIVERSITY OF ARIZONA 1538
 IMPACT CRATERING AND THE EVOLUTION OF THE TERRESTRIAL PLAN-
 ETS
 12/08/1997 - 09/30/1999 FY99: \$150,000 Total: \$300,000
Prin. Invest.: H MELOSH
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6611 UNIVERSITY OF ARIZONA 1539
 SPACEWATCH SURVEY OF THE SOLAR SYSTEM
 02/12/1998 - 11/30/1999 FY99: \$75,872 Total: \$151,744
Prin. Invest.: R S MCMILLAN
Tech. Officer: GSFC/T MORGAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6620 UNIVERSITY OF ARIZONA 1540
 THEORETICAL AND MODELLING SUPPORT FOR THE HELIOSPHERIC MIS-
 SIONS
 11/18/1997 - 11/14/2000 FY99: \$95,000 Total: \$190,000
Prin. Invest.: J JOKIPPI
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6663 UNIVERSITY OF ARIZONA 1541
 GENERATION AND BEHAVIOR OF SOLAR SYSTEM MAGNETIC FIELDS
 11/25/1997 - 11/30/1999 FY99: \$0 Total: \$69,000
Prin. Invest.: D H LEVY
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6687 UNIVERSITY OF ARIZONA 1542
 USING UARS MLS TO INVESTIGATE THE IMPACTS OF TROPO SPHERE CON-
 VECTION AND PLANETARY-SCALE ANDSYMOPTI
 11/25/1997 - 11/30/1999 FY99: \$80,994 Total: \$159,629
Prin. Invest.: D FU
Tech. Officer: GSFC/A DOUGLASS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6779 UNIVERSITY OF ARIZONA 1543
 ANALYSIS OF ICE CORES FOR ESTIMATING ACCUMULATION PATTERNS
 AND PAST ATMOSPHERIC CHEMISTRY IN GREENLAND
 01/14/1998 - 12/31/1999 FY99: \$198,236 Total: \$308,360
Prin. Invest.: R BALES
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6944 UNIVERSITY OF ARIZONA 1544
 ORIGIN AND EVOLUTION OF PLANETARY ATMOSPHERES
 02/10/1998 - 01/31/1999 FY99: \$0 Total: \$39,990
Prin. Invest.: J S LEWIS
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 6945 UNIVERSITY OF ARIZONA 1545
 THEORETICAL STUDIES OF PLANETARY ATMOSPHERES
 02/10/1998 - 01/31/1999 FY99: -\$26 Total: \$44,974
Prin. Invest.: D M HUNTEN
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 6967 UNIVERSITY OF ARIZONA 1546
 THE ROLE OF ATMOSPHERIC-LAND-OCEAN COUPLING IN DETERMINING
 CLOUDS, PRECIPITATION AND WATER VAPOR
 03/06/1998 - 06/30/1999 FY99: \$0 Total: \$148,000
Prin. Invest.: R FU
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6980 UNIVERSITY OF ARIZONA 1547
 GAS-GRAIN INTERACTIONS
 02/06/1998 - 10/31/1998 FY99: \$0 Total: \$38,600
Prin. Invest.: L L HOOD
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6983 UNIVERSITY OF ARIZONA 1548
 GLOW DAYGLOW MEASUREMENTS: EQUATORIAL IONOSPHERIC METALS &
 METAL IONS
 02/09/1998 - 03/31/1999 FY99: -\$86 Total: \$51,914
Prin. Invest.: J A GARDNER
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7004 UNIVERSITY OF ARIZONA 1549
 HOT SUBLUMINOUS STARS IN THE IUE ARCHIVES: NEWSIPS REDUCTION
 AND NON-LTE ANALYSIS
 02/06/1998 - 02/14/1999 FY99: -\$66 Total: \$39,934
Prin. Invest.: J HOLBERG
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7022 UNIVERSITY OF ARIZONA 1550
 SILICATE VOLCANISM ON IO
 04/09/1998 - 03/31/2000 FY99: \$35,000 Total: \$70,000
Prin. Invest.: L KESZTHELYI
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7072 UNIVERSITY OF ARIZONA 1551
 GALILEO AND CLEMENTINE CARTOGRAPHY SUPPORT
 02/20/1998 - 03/31/1999 FY99: \$0 Total: \$75,000
Prin. Invest.: A S MCEWEN
Tech. Officer: GSFC/P ROGERS
CASE Category: 11 - ASTRONOMY

NAG 5 7073 UNIVERSITY OF ARIZONA 1552
 A COMPREHENSIVE THEORY FOR M DWARFS, BROWN DWARFS, AND
 GIANT PLANETS-ATP
 02/24/1998 - 02/14/2000 FY99: \$87,122 Total: \$172,818
Prin. Invest.: A S BURROWS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7083 UNIVERSITY OF ARIZONA 1553
 INFRARED OBSERVATIONS OF SMALL BODIES IN THE OUTER SOLAR SYS-
 TEM
 03/10/1998 - 03/31/2000 FY99: \$51,000 Total: \$101,999
Prin. Invest.: R H BROWN
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 7089 UNIVERSITY OF ARIZONA 1554
 STRUCTURE OF THE HELIOSPHERE INFERRED FROM VOYAGER UVS MEA-
 SUREMENTS
 02/23/1998 - 01/31/2000 FY99: \$46,667 Total: \$80,000
Prin. Invest.: B R SANDEL
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 7151 UNIVERSITY OF ARIZONA 1555
 THE PHYSICAL ORIGIN OF GALAXY MORPHOLOGIES AND SCALING LAWS-
 ATP
 03/04/1998 - 03/14/2000 FY99: \$84,046 Total: \$178,143
Prin. Invest.: M STEINMETZ
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7200 UNIVERSITY OF ARIZONA 1556
 LINE PROFILE SPECTROMETER TO CONFIRM PLANET DETECTIONS
 04/30/1998 - 04/14/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: N J WOOLF
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7211 UNIVERSITY OF ARIZONA 1557
 COUPLED PHYSICAL AND CHEMICAL EVOLUTION OF THE SOLAR NEBULA
 03/26/1998 - 01/31/2001 FY99: \$50,000 Total: \$80,000
Prin. Invest.: J LUNINE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7215 UNIVERSITY OF ARIZONA 1558
 INCORPORATION OF NOBLE GASES INTO INTERSTELLAR ICE ANALOGS
 03/31/1998 - 05/31/2001 FY99: \$37,075 Total: \$64,300
Prin. Invest.: T D SWINDLE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

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NAG 5 7249 UNIVERSITY OF ARIZONA 1559
 MODELING OF MOSS AND LICHEN IN THE BOREAL FORESTS
 04/28/1998 - 04/30/2000 FY99: \$43,970 Total: \$116,648
 Prin. Invest.: R E DICKINSON
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7257 UNIVERSITY OF ARIZONA 1560
 ALGORITHM FOR FUTURE OZONE PROFILING USING LIMB SCATTER MEASUREMENTS
 04/14/1998 - 12/31/1999 FY99: \$100,000 Total: \$165,000
 Prin. Invest.: B M HERMAN
 Tech. Officer: GSFC/R D MCPETERS
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7364 UNIVERSITY OF ARIZONA 1561
 THERMAL HISTORY OF PLANETARY MATERIALS: EXPERIMENTAL & THEORETICAL STUDIES, AND APPLICATIONS
 04/29/1998 - 04/30/2001 FY99: \$75,000 Total: \$120,000
 Prin. Invest.: J GANGULY
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 7470 UNIVERSITY OF ARIZONA 1562
 A LIGHT AIRCRAFT RADIOMETRIC PACKAGE FOR MODLAND QUICK AIRBORNE LOOKS (MQUALS)
 06/02/1998 - 09/30/1999 FY99: \$20,000 Total: \$73,913
 Prin. Invest.: A HUETE
 Tech. Officer: GSFC/J L PRIVETTE
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 7499 UNIVERSITY OF ARIZONA 1563
 THEORETICAL MODELS OF EXTRASOLAR GIANT PLANETS
 06/01/1998 - 04/30/2001 FY99: \$50,000 Total: \$100,000
 Prin. Invest.: A BURROWS
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 7509 UNIVERSITY OF ARIZONA 1564
 METEORITE IMPACT AND GLOBAL CHANGE: A NUMERICAL STUDY OF THE RESPONSE OF THE EARTH'S CLIMATE TO L
 06/30/1998 - 08/31/2000 FY99: \$0 Total: \$46,966
 Prin. Invest.: H MELOSH
 Tech. Officer: GSFC/M MEYER
 CASE Category: 11 - ASTRONOMY

NAG 5 7523 UNIVERSITY OF ARIZONA 1565
 CATALINA SKY SURVEY IMPROVEMENTS
 07/09/1998 - 09/30/1999 FY99: \$0 Total: \$106,149
 Prin. Invest.: S LARSON
 Tech. Officer: GSFC/T MORGAN
 CASE Category: 11 - ASTRONOMY

NAG 5 7533 UNIVERSITY OF ARIZONA 1566
 MOSAIC OF CCDs TO SURVEY FOR ASTEROIDS AND COMETS
 06/11/1998 - 07/31/1999 FY99: \$0 Total: \$730,006
 Prin. Invest.: R S MCMILLAN
 Tech. Officer: GSFC/T MORGAN
 CASE Category: 11 - ASTRONOMY

NAG 5 7554 UNIVERSITY OF ARIZONA 1567
 PRECURSORY SIGNALS ASSOCIATED WITH REGIONAL AND IN TERANNUAL VARIABILITY OF THE NORTH AMERICAN SUMME
 06/25/1998 - 06/30/2001 FY99: \$0 Total: \$399,999
 Prin. Invest.: W SHUTTLEWORTH
 Tech. Officer: GSFC/E ENGMAN
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7716 UNIVERSITY OF ARIZONA 1568
 IMPROVING SATELLITE RAIN ESTIMATION ALGORITHMS USING COMBINATION OF TRMM INSTANTANEOUS PRECIPITATION
 10/27/1998 - 10/31/1999 FY99: \$196,925 Total: \$196,925
 Prin. Invest.: S SOROOSHIAN
 Tech. Officer: GSFC/O W THIELE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7734 UNIVERSITY OF ARIZONA 1569
 HEAVY ELEMENT ABUNDANCES: CLUES TO THE EVOLUTION OF STAR
 12/18/1998 - 10/31/1999 FY99: \$136,031 Total: \$136,031
 Prin. Invest.: D GARNETT
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7758 UNIVERSITY OF ARIZONA 1570
 2MASS ASTEROID AND COMET CATALOG
 12/08/1998 - 09/30/1999 FY99: \$36,900 Total: \$36,900
 Prin. Invest.: M V SYKES
 Tech. Officer: GSFC/T MORGAN
 CASE Category: 11 - ASTRONOMY

NAG 5 7763 UNIVERSITY OF ARIZONA 1571
 NEXT GENERATION SPACE TELESCOPE (NGST) AD HOC SCIENCE WORKING GROUP (ASWG) ACTIVITY
 01/14/1999 - 12/31/1999 FY99: \$10,000 Total: \$10,000
 Prin. Invest.: M MEYER
 Tech. Officer: GSFC/E SMITH
 CASE Category: 11 - ASTRONOMY

NAG 5 7780 UNIVERSITY OF ARIZONA 1572
 WORKSHOP ON SUN-TERRESTRIAL CLIMATE CONNECTIONS
 10/29/1998 - 10/31/1999 FY99: \$69,017 Total: \$69,017
 Prin. Invest.: W A SPRIGG
 Tech. Officer: GSFC/D EVANS
 CASE Category: 11 - ASTRONOMY

NAG 5 7793 UNIVERSITY OF ARIZONA 1573
 THEORY AND MODELING OF ENERGETIC PARTICLE COMPOSITION SPECTRA AND ANISOTROPIES AND TIME VARIATION
 12/10/1998 - 10/31/1999 FY99: \$81,976 Total: \$81,976
 Prin. Invest.: J GIACALONE
 Tech. Officer: GSFC/D C LING
 CASE Category: 11 - ASTRONOMY

NAG 5 7834 UNIVERSITY OF ARIZONA 1574
 A COMPARISON OF OBSERVATIONS AND GCM SIMULATIONS OF THE QUASI-DECADAL OSCILLATION
 12/14/1998 - 12/14/1999 FY99: \$42,222 Total: \$42,222
 Prin. Invest.: L L HOOD
 Tech. Officer: GSFC/R RIND
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7854 UNIVERSITY OF ARIZONA 1575
 SOLAR SYSTEM RESEARCH WITH THE SPACEWATCH 1.8-M TE LESCOPE
 12/07/1998 - 11/30/1999 FY99: \$129,990 Total: \$129,990
 Prin. Invest.: D S MCMILLAN
 Tech. Officer: GSFC/T MORGAN
 CASE Category: 11 - ASTRONOMY

NAG 5 7865 UNIVERSITY OF ARIZONA 1576
 ACTIVE VOLCANISM ON IO
 01/12/1999 - 12/01/1999 FY99: \$65,000 Total: \$65,000
 Prin. Invest.: D S MCEWEN
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 7923 UNIVERSITY OF ARIZONA 1577
 HUBBLE SPACE TELESCOPE ASTRONOMY
 12/14/1998 - 12/14/1999 FY99: \$3,786,200 Total: \$3,786,200
 Prin. Invest.: R THOMPSON
 Tech. Officer: GSFC/J JELETIC
 CASE Category: 11 - ASTRONOMY

NAG 5 7957 UNIVERSITY OF ARIZONA 1578
 TIDAL AND TECTONIC PROCESSES ON EUROPA
 01/08/1999 - 12/31/1999 FY99: \$43,463 Total: \$43,463
 Prin. Invest.: D GREENBERG
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 7966 UNIVERSITY OF ARIZONA 1579
 STUDY OF SOLAR AND HELIOSPHERIC ENERGETIC IONS VIA ENERGETIC
 NEUTRALATOMS USING CELIAS/SOHO
 12/15/1998 - 12/31/1999 FY99: \$45,262 Total: \$45,262
 Prin. Invest.: K HSIEH
 Tech. Officer: GSFC/D C LING
 CASE Category: 11 - ASTRONOMY

NAG 5 7994 UNIVERSITY OF ARIZONA 1580
 THE MARS LOWER AND UPPER ATMOSPHERE: DETAILED COUPLING
 USING GENERALCIRCULATION MODELS
 01/06/1999 - 01/14/2000 FY99: \$90,000 Total: \$90,000
 Prin. Invest.: S BOUGHER
 Tech. Officer: GSFC/J BERGSTRAHL
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8006 UNIVERSITY OF ARIZONA 1581
 OBSERVATIONS OF TWO COMET-ASTEROID TRANSITION OBJECTS
 01/06/1999 - 01/14/2000 FY99: \$16,283 Total: \$16,283
 Prin. Invest.: D CAMPINS
 Tech. Officer: GSFC/T MORGAN
 CASE Category: 11 - ASTRONOMY

NAG 5 8015 UNIVERSITY OF ARIZONA 1582
 CATALINA NEO SKY SURVEY
 01/13/1999 - 12/31/1999 FY99: \$300,000 Total: \$300,000
 Prin. Invest.: S LARSON
 Tech. Officer: GSFC/T MORGAN
 CASE Category: 11 - ASTRONOMY

NAG 5 8051 UNIVERSITY OF ARIZONA 1583
 GALILEO EUV OBSERVATIONS OF IO'S PLASMA TORUS AND JUPITER'S
 ATMOSPHERE
 01/13/1999 - 01/14/2000 FY99: \$58,002 Total: \$58,002
 Prin. Invest.: D HERBERT
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 8095 UNIVERSITY OF ARIZONA 1584
 PRESERVATION AND ENHANCEMENT OF THE SPACEWATCH DATA
 ARCHIVES
 01/29/1999 - 01/31/2000 FY99: \$54,978 Total: \$54,978
 Prin. Invest.: J A LARSEN
 Tech. Officer: GSFC/J BREDKAMP
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8117 UNIVERSITY OF ARIZONA 1585
 COMBINED LIDAR AND PASSIVE SENSING TECHNIQUES FOR CHARACTER-
 IZATION OF AEROSOL RADIATIVE EFFECTS
 01/26/1999 - 01/31/2000 FY99: \$104,862 Total: \$104,862
 Prin. Invest.: J A REAGAN
 Tech. Officer: GSFC/M MISHCHENKO
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8152 UNIVERSITY OF ARIZONA 1586
 MARS GLOBAL SURVEYOR AEROBRACING: THERMOSPHERE-IONOSPHERE
 TRENDS & MTGCM INTERPRETATION
 02/11/1999 - 03/31/2000 FY99: \$64,300 Total: \$64,300
 Prin. Invest.: S W BOUGHER
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8157 UNIVERSITY OF ARIZONA 1587
 SUPPORT AN EXTENSION SPECIALIST IN GEOSPATIAL INFORMATION
 TECHNOLOGY FOR THE STATE OF ARIZONA
 02/05/1999 - 01/31/2000 FY99: \$149,949 Total: \$149,949
 Prin. Invest.: D YOUNG
 Tech. Officer: GSFC/A TUYAHOV
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8185 UNIVERSITY OF ARIZONA 1588
 ANALYSIS OF THE CRUSTAL MAGNETIC FIELD OF MARS
 02/17/1999 - 02/29/2000 FY99: \$42,200 Total: \$42,200
 Prin. Invest.: L L HOOD
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8214 UNIVERSITY OF ARIZONA 1589
 INFLUENCE OF SUBGRID-SCALE HETEROGENEITY ON REMOTELY
 SENSED ESTIMATES OF THE AMAZONIAN SURFACE EN
 03/01/1999 - 02/29/2000 FY99: \$19,753 Total: \$19,753
 Prin. Invest.: J W SHUTTLEWORTH
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8239 UNIVERSITY OF ARIZONA 1590
 A COMPREHENSIVE THEORETICAL STUDY OF THE INNER 10 PARSECS AT
 THE GALACTIC CENTER (ATP98)
 02/26/1999 - 02/28/2000 FY99: \$60,000 Total: \$60,000
 Prin. Invest.: F MELIA
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8260 UNIVERSITY OF ARIZONA 1591
 THE LARGE BINOCULAR TELESCOPE: AN INTERFEROMETER TEST-BED
 FOR ORIGINS ATD
 02/16/1999 - 02/29/2000 FY99: \$4,700,000 Total: \$4,700,000
Prin. Invest.: P A STRITTMATTER
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 8308 UNIVERSITY OF ARIZONA 1592
 QUANTITATIVE INTERPRETATION OF VOLCANIC FEATURES I N MOC
 IMAGES
 03/03/1999 - 02/28/2001 FY99: \$94,300 Total: \$94,300
Prin. Invest.: L KESZTHELYI
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8340 UNIVERSITY OF ARIZONA 1593
 COLORIMETRY OF THE GALILEAN SATELLITES
 04/07/1999 - 03/31/2000 FY99: \$41,931 Total: \$41,931
Prin. Invest.: D E GEISLER
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8341 UNIVERSITY OF ARIZONA 1594
 MODELS AND MODES OF ENABLING THE USE OF NASA EARTH SCIENCE
 AND DATAIN DECISION MAKING
 04/07/1999 - 12/31/1999 FY99: \$130,000 Total: \$130,000
Prin. Invest.: C F HUTCHINSON
Tech. Officer: GSFC/C LEE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8349 UNIVERSITY OF ARIZONA 1595
 ACCURATE SPECTROPHOTOMETRY OF THE PATHFINDER LANDI NG SITE
 02/26/1999 - 02/29/2000 FY99: \$145,000 Total: \$145,000
Prin. Invest.: P H SMITH
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8426 UNIVERSITY OF ARIZONA 1596
 MULTIWAVELENGTH DIAGNOSTICS OF GALAXY EVOLUTION AN D STAR
 FORMATIONLTSa98
 04/26/1999 - 04/30/2000 FY99: \$118,502 Total: \$118,502
Prin. Invest.: R C KENNICUTT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8502 UNIVERSITY OF ARIZONA 1597
 SUPPORT OF ACTIVITIES AND OPERATION OF THE GLOBAL ENERGY AND
 WATERCYCLE EXPERIMENT SCIENCE STE
 05/11/1999 - 05/14/2000 FY99: \$164,602 Total: \$164,602
Prin. Invest.: S ROROOSHIAN
Tech. Officer: GSFC/R SCHIEFFER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8503 UNIVERSITY OF ARIZONA 1598
 AN INTEGRATED INFORMATION SYSTEM FOR MULTI-PURPOSE USER-
 ADAPTIVE ACCESS TO LAND SURFACE HYDROLOGIC
 05/11/1999 - 05/14/2000 FY99: \$200,000 Total: \$200,000
Prin. Invest.: S SOROOSHIAN
Tech. Officer: GSFC/E WOOD
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8509 UNIVERSITY OF ARIZONA 1599
 IMPLICATIONS OF VOLATILE ICE EMMISIVITY FOR GASSES AROUND
 TRANS-NEPTUNIAN OBJECTS
 06/02/1999 - 06/30/2000 FY99: \$31,200 Total: \$31,200
Prin. Invest.: J STANSBERRY
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8660 UNIVERSITY OF ARIZONA 1600
 VALIDATION OF MODLAND PRODUCTS WITH LIGHT AIRCRAFT AT LBA AND
 COMMUNITY SITES WITH MQUALS.
 08/31/1999 - 08/31/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: A HAUTE
Tech. Officer: GSFC/J PRIVETTE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8686 UNIVERSITY OF ARIZONA 1601
 MEMBERSHIP TO THE AEROSOL RADIATIVE FORCING SCIENC E TEAM
 07/16/1999 - 07/14/2000 FY99: \$13,144 Total: \$13,144
Prin. Invest.: K J THOME
Tech. Officer: GSFC/M I MISHCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1234 UNIVERSITY OF ARIZONA 1602
 NON-EQUILIBRIUM PHASE TRANSFORMATION
 04/25/1996 - 04/30/2000 FY99: \$150,000 Total: \$517,500
Prin. Invest.: K A JACKSON
Tech. Officer: MSFC/C R TALLEY
CASE Category: 13 - PHYSICS

NAG 8 1469 UNIVERSITY OF ARIZONA 1603
 DEVELOPMENT OF SUPERIOR MATERIALS FOR LAYERED SOLID OXIDE
 ELECTROLYZERS BASED ON MECHANICAL
 04/17/1998 - 01/31/2002 FY99: \$72,500 Total: \$122,500
Prin. Invest.: J R SRIDHAR
Tech. Officer: MSFC/P M DOTY
CASE Category: 46 - MECHANICAL ENGR

NAG 8 1520 UNIVERSITY OF ARIZONA 1604
 QUANTIFYING THE EFFECTS OF SUB-GRID TOPOGRAPHY & VEGETATION
 ON SEASONAL SNOW COVER, RELATED SNOWMLT
 05/29/1998 - 03/31/2001 FY99: \$120,803 Total: \$237,829
Prin. Invest.: Z YANG, R BALES, R E DICKINSON
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1523 UNIVERSITY OF ARIZONA 1605
 IMPROVING GCM MODELING THRU HYDROLOGICALLY REAL- ISTIC SUB-
 GRID REPRESENTATION OF LAND-ATMOSPHERE
 05/26/1998 - 05/31/2001 FY99: \$179,966 Total: \$339,745
Prin. Invest.: S SOROOSHIAN, H GUPTA, X GAO
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1531 UNIVERSITY OF ARIZONA 1606
 INFLUENCE OF SUBGRID SCALE HETEROGENEITY ON REMOTELY SENSED
 SURFACE TEMPERATURES
 06/01/1998 - 05/31/2001 FY99: \$200,000 Total: \$410,000
Prin. Invest.: W J SHUTTLEWORTH, J J TOTHT
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1542 UNIVERSITY OF ARIZONA 1607
 ALDF NETWORK INSTALLATION IN SUPPORT OF LIS VALIDATION
 07/22/1998 - 09/30/2000 FY99: \$0 Total: \$44,300
Prin. Invest.: C D WEIDMAN
Tech. Officer: MSFC/R J BLAKESLEE, MSFC/S J GOODMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 923 UNIVERSITY OF ARIZONA 1608
 POLYCRYSTALLINE ZIRCONIA ELEC CELL STACK FOR CO2 ELECTROLYSIS
 01/29/1997 - 05/31/2000 FY99: \$180,000 Total: \$380,749
Prin. Invest.: K R SRIDHAR
Tech. Officer: JSC/R S BAIRD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 428 UNIVERSITY OF ARIZONA 1609
 CRATER MODIFICATION BY GRAVITY
 03/15/1983 - 09/30/1997 FY99: -\$14,268 Total: \$1,853,742
Prin. Invest.: H J MELOSH
Tech. Officer: HQ/J R UNDERWOOD, HQ/D SCOTT
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 1332 UNIVERSITY OF ARIZONA 1610
 CENTER FOR UTIL. OF LOCAL PLANETARY RESOURCES
 07/13/1988 - 03/31/1999 FY99: \$0 Total: \$9,970,182
Prin. Invest.: S C CROW, K N RAMOHALLI
Tech. Officer: HQ/B F QUIGLEY
CASE Category: 49 - ENGINEERING, OTHER

NAGW 3373 UNIVERSITY OF ARIZONA 1611
 MINERALOGIC AND TRACE ELEMENT STUDIES OF METEORITE S AND
 METEORITE IMPACTS
 02/10/1993 - 09/30/1997 FY99: -\$1,261 Total: \$990,809
Prin. Invest.: W BOYNTON
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3400 UNIVERSITY OF ARIZONA 1612
 ORIGIN AND EVOLUTION OF PLANETARY ATMOSPHERE
 03/15/1993 - 09/30/1997 FY99: -\$27,198 Total: \$217,707
Prin. Invest.: J LEWIS
Tech. Officer: HQ/H C BRINTON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3657 UNIVERSITY OF ARIZONA 1613
 THE VOYAGER ULTRAVIOLET SPECTROMETER EXPERIMENT TH ROUGH
 THE VOYAGER INTERSTELLAR MISSION
 06/16/1993 - 09/30/1997 FY99: -\$33 Total: \$582,967
Prin. Invest.: A BROADFOOT
Tech. Officer: HQ/W V JONES, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4542 UNIVERSITY OF ARIZONA 1614
 TRANSPORT EQUATIONS OF COSMIC RAYS
 05/24/1995 - 02/28/1998 FY99: -\$15 Total: \$99,985
Prin. Invest.: J KOTA
Tech. Officer: HQ/W V JONES, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG10 92 UNIVERSITY OF ARIZONA 1615
 LIGHTNING FIELD CHANGES & DISPLACEMENT CURRENTS AT KSC
 08/12/1991 - 06/30/2000 FY99: \$65,000 Total: \$384,351
Prin. Invest.: E P KRIDER
Tech. Officer: KSC/W JAFFERIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG10 134 UNIVERSITY OF ARIZONA 1616
 EFFECT OF MICROGRAVITY ON TOBACCO HORNWORM (MANDUCA SEXTA)
 DURING METAMORPHOSIS
 05/02/1994 - 10/01/1998 FY99: \$0 Total: \$230,575
Prin. Invest.: M T TISCHLER
Tech. Officer: KSC/W M KNOTT
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG10 249 UNIVERSITY OF ARIZONA 1617
 RESEARCH POLYCRYSTALLINE ZIRCONIA ELECTROLYZER CELL STACK
 FOR CO2 ELECTROLYSIS
 09/23/1998 - 03/25/1999 FY99: -\$69,999 Total: \$0
Prin. Invest.: K R SRIDHAR
Tech. Officer: KSC/F N LIN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG10 255 UNIVERSITY OF ARIZONA 1618
 RESEARCH HYBRID SOLAR AND ARTIFICIAL LIGHTING FOR SPACE LIFE
 SUPPORT
 03/17/1999 - 05/31/1999 FY99: \$121,069 Total: \$121,069
Prin. Invest.: J L CUELLO
Tech. Officer: KSC/R WHEELER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG13 99005 UNIVERSITY OF ARIZONA 1619
 NASA SOUTHWEST EARTH SCIENCE APPLICATIONS CENTER SAME
 02/19/1999 - 02/18/2002 FY99: \$1,499,981 Total: \$1,499,981
Prin. Invest.: R DAVIS
Tech. Officer: SSC/C HILL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 1 18939 UNIVERSITY OF ARIZONA 1620
 SAGE III SCIENCE INVESTIGATION SUPPORT - P.I. - B. HERMAN
 02/28/1990 - 01/31/2005 FY99: \$244,681 Total: \$699,500
Prin. Invest.: B M HERMAN
Tech. Officer: LARC/G L MADDREA JR, LARC/L R MCMASTER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 19953 UNIVERSITY OF ARIZONA 1621
 SCIENCE SUPPORT TO THE LITE SCIENCE TEAM
 05/24/1993 - 05/23/2000 FY99: \$0 Total: \$269,000
Prin. Invest.: J A REAGAN
Tech. Officer: LARC/G L MADDREA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 99055 UNIVERSITY OF ARIZONA 1622
 ACTIVE TROPOSPHERIC OZONE AND MOISTURE SOUNDER (ATOMS)
 04/21/1999 - 04/20/2000 FY99: \$144,000 Total: \$144,000
Prin. Invest.: B M HERMAN
Tech. Officer: LARC/J R HILL, LARC/F PERI
CASE Category: 31 - ATMOSPHERIC SCIENCE

ARIZONA

NASA'S UNIVERSITY PROGRAM

NAS 1 99102 UNIVERSITY OF ARIZONA 1623
 PICASSO-CENA SCIENCE TEAM SUPPORT FOR AERSOL AND CLOUD STUDIES
 05/17/1999 - 05/16/2001 FY99: \$25,000 Total: \$25,000
Prin. Invest.: J A REAGAN
Tech. Officer: LARC/G GIBSON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31289 UNIVERSITY OF ARIZONA 1624
 DEVELOPMENT OF THE HST SECOND GENERATION INSTRUMENT TITLED NICMOS
 12/20/1990 - 09/30/1997 FY99: \$0 Total: \$91,002,735
Prin. Invest.: R L THOMPSON
Tech. Officer: GSFC/M M JUROTICH
CASE Category: 41 - AERONAUTICAL ENGR

NAS 5 31364 UNIVERSITY OF ARIZONA 1625
 EOS/MODIS INVESTIGATION FROM DR. HUETE
 01/24/1992 - 12/14/2001 FY99: \$526,000 Total: \$2,980,109
Prin. Invest.: A HUETE
Tech. Officer: GSFC/H OSEROFF
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31717 UNIVERSITY OF ARIZONA 1626
 EOS INVESTIGATION
 01/03/1992 - 12/14/2001 FY99: \$646,500 Total: \$6,697,750
Prin. Invest.: P N SLATER
Tech. Officer: GSFC/L STUART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 98169 UNIVERSITY OF ARIZONA 1627
 NGST INTEGRATED SCIENCE INSTRUMENT MODULE (ISIM) CONCEPT STUDY
 06/24/1998 - 12/31/1999 FY99: \$0 Total: \$170,000
Prin. Invest.: J BECHTOLD, T P GREENE
Tech. Officer: GSFC/L R PURVES
CASE Category: 11 - ASTRONOMY

NAS 5 99208 UNIVERSITY OF ARIZONA 1628
 PHASE I (DESIGN) OF THE ADVANCED MIRROR SYSTEM DEMONSTRATOR (AMSD)
 05/14/1999 - 09/15/1999 FY99: \$299,967 Total: \$299,967
Prin. Invest.: J H BURGE
Tech. Officer: MSFC/D H JACOBSON
CASE Category: 46 - MECHANICAL ENGR

NAS 8 97309 UNIVERSITY OF ARIZONA 1629
 FABRICATION, TEST, AND DELIVERY OF PRIMARY MIRROR SYSTEM DEMONSTRATOR
 07/17/1997 - 08/31/2000 FY99: \$3,530,408 Total: \$5,495,181
Prin. Invest.: J H BURGE
Tech. Officer: MSFC/D JACOBSON
CASE Category: 49 - ENGINEERING, OTHER

NAS 9 97224 UNIVERSITY OF ARIZONA 1630
 MARS FLIGHT DEMONSTRATION OXYGEN GENERATORY SUBSYS
 12/13/1997 - 04/30/2000 FY99: \$472,909 Total: \$1,076,818
Prin. Invest.: K R SRIDHAR
Tech. Officer: JSC/S BAIRD
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 2 5239 UNIVERSITY OF ARIZONA 1631
 DEVELOPMENT OF THE COUPLED LEAFMOD/SART CANOPY- LEVEL RADIATIVE TRANSFER MODEL
 09/15/1997 - 01/31/2000 FY99: \$0 Total: \$50,000
Prin. Invest.: B D GANAPOL
Tech. Officer: ARC/D L PETERSON
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NCC 2 5262 UNIVERSITY OF ARIZONA 1632
 SOLID STATE PRESSURE SENSORS FOR AEROASSIST TECHNOLOGY APPLICATIONS
 03/25/1998 - 03/31/1999 FY99: \$25,000 Total: \$119,898
Prin. Invest.: K R SRIDHAR
Tech. Officer: ARC/H K TRAN, ARC/D R OLYNICK
CASE Category: 49 - ENGINEERING, OTHER

NCC 2 5316 UNIVERSITY OF ARIZONA 1633
 TECHNOLOGY DEVELOPMENT FOR ASTROBIOLOGY SAMPLE ACQUISITION, STORAGE & ANALYSIS
 04/12/1999 - 01/31/2000 FY99: \$59,711 Total: \$59,711
Prin. Invest.: K R SRIDHAR
Tech. Officer: ARC/M H KAISS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5357 UNIVERSITY OF ARIZONA 1634
 ISRU TECHNOLOGIES FOR MARS LIFE SUPPORT
 09/29/1999 - 01/31/2000 FY99: \$24,272 Total: \$24,272
Prin. Invest.: K R SRIDHAR
Tech. Officer: ARC/J E FINN
CASE Category: 46 - MECHANICAL ENGR

NCC 5 355 UNIVERSITY OF ARIZONA 1635
 PROPOSAL FOR GRADUATE STUDENT SUPPORT UNDER CCAST. NOW INCLUDES ADDITIONAL SUPP
 08/04/1998 - 07/31/2000 FY99: \$140,374 Total: \$259,696
Prin. Invest.: B M HERMAN
Tech. Officer: GSFC/A J NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 8 96 UNIVERSITY OF ARIZONA 1636
 COMPARISON OF STRUCTURE AND SEGREGATION IN ALLOYS
 06/07/1996 - 05/31/2000 FY99: \$109,000 Total: \$512,000
Prin. Invest.: D R POIRIER
Tech. Officer: MSFC/D HUBBARD
CASE Category: 49 - ENGINEERING, OTHER

NCC 8 160 UNIVERSITY OF ARIZONA 1637
 REMOTE SENSING INVESTIGATION OF THE ANCIENT MAYA LANDSCAPE
 12/08/1998 - 12/07/2001 FY99: \$92,709 Total: \$92,709
Prin. Invest.: T P CULBERT
Tech. Officer: MSFC/T SEVER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 1 52176 UNIVERSITY OF ARIZONA 1638
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 08/25/1997 - 07/31/2000 FY99: \$32,000 Total: \$54,000
Prin. Invest.: J A REAGAN, M A RUBIE
Tech. Officer: LARC/C A HOSTETLER, LARC/D M WINKER
CASE Category: 49 - ENGINEERING, OTHER

NGT 1 52206 UNIVERSITY OF ARIZONA 1639
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/14/1998 – 07/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: H F FASEL, H F FASEL
Tech. Officer: LARC/B A SINGER, LARC/B A SINGER
CASE Category: 41 – AERONAUTICAL ENGR

NGT 2 52224 UNIVERSITY OF ARIZONA 1640
 INVESTIGATION OF TURBULENCE MECHANISMS IN THE STRA TFORD
 RAMP BOUNDARY LAYER FOR ... CARY BACHMAN
 07/24/1997 – 07/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: H F FASEL, C R BACHMAN
Tech. Officer: ARC/S S DAVIS
CASE Category: 41 – AERONAUTICAL ENGR

NGT 4 52408 UNIVERSITY OF ARIZONA 1641
 GSRP INVESTIGATION OF ACTUATORS USED IN ACTIVE FLO W CONTROL
 06/18/1998 – 07/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: H F FASEL, M LINNICK
Tech. Officer: SSC/K GUPTA, SSC/L S VOELKER
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 41 UNIVERSITY OF ARIZONA 1642
 FINAL YEAR OF FUNDING FOR USRC PROGRAM AT UNIV FO RESEARCH
 CENTER FOR UTILIZATION OF LOCAL PLANETAR
 06/19/1997 – 10/31/1997 FY99: \$0 Total: \$5,439
Prin. Invest.: K RAMOHALLI
Tech. Officer: GSFC/R AVANT
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30013 UNIVERSITY OF ARIZONA 1643
 A STUDY OF 1993 USA FLOOD MECHANISM ON REGIONAL AN USING CLI-
 MATE MODELS AND REMOTE-SENSING
 10/23/1996 – 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: R E DICKSON
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30051 UNIVERSITY OF ARIZONA 1644
 A NEW SPHERICAL-SHELL RADIATIVE TRANSFER MODEL FOR LIMB SCAT-
 TERING RADIANCES
 09/06/1997 – 08/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: B M HERMAN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30082 UNIVERSITY OF ARIZONA 1645
 THIRD YEAR FUNDING: "AREA-AVERAGE REPRESENTATION COVERS
 BASED ON REMOTELY SENSED LAND COVERDATA"
 09/11/1997 – 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: J W SHUTTLEWORTH
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30095 UNIVERSITY OF ARIZONA 1646
 FORECASTING CROP YIELD FROM THE CROP SPECIFIC WATE INTE-
 GRATED WITH ARTEMIS SATELLITE DATA AND GIS/RE
 09/10/1997 – 08/31/1998 FY99: -\$13 Total: \$21,987
Prin. Invest.: M YITAYEW
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30140 UNIVERSITY OF ARIZONA 1647
 ECOSYSTEM DEGRADATION AND HOUSEHOLD VULNERABILITY IN THE
 SEMI ARID REGION OF CHILE
 08/27/1998 – 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C HUTCHINSON
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30148 UNIVERSITY OF ARIZONA 1648
 SYNTHETIC LAHAR HAZARD MODELING USING ORBITAL DEM DATA/NASA
 EARTH SCI. SYSTEM_PROGRAM/STUDENT: KLI
 08/28/1998 – 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C E GLASS
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 40026 UNIVERSITY OF ARIZONA 1649
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 12/30/1996 – 01/31/2000 FY99: \$475,000 Total: \$1,329,998
Prin. Invest.: E H LEVY
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50014 UNIVERSITY OF ARIZONA 1650
 LARGE SCALE MHD ACCRETION ONTO MASSIVE BLACK HOLES FOR
 NUCLEAR BROAD LINE REGIONS
 07/14/1997 – 01/14/2000 FY99: \$0 Total: \$44,000
Prin. Invest.: F MELIA
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50046 UNIVERSITY OF ARIZONA 1651
 ACHROMATIC NULLING BEAM COMBINER FOR A PLANET
 07/17/1997 – 08/14/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M LLOYD-HART
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50111 UNIVERSITY OF ARIZONA 1652
 GRADUATE STUDENT RESEARCHERS PROGRAM – STUDENT: K
 09/04/1997 – 08/14/1999 FY99: \$0 Total: \$33,000
Prin. Invest.: J LUNINE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50132 UNIVERSITY OF ARIZONA 1653
 PLANETARY DYNAMOS AND THERMAL EVOLUTION: THE IMPO HEAT PRO-
 DUCING ELEMENTS DISSOLVED IN TERRESTRIAL
 09/10/1997 – 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: M J DRAKE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50190 UNIVERSITY OF ARIZONA 1654
 THEORETICAL & OBSERVATIONAL STUDY OF ORIGIN & EVOLUTION OF
 PLANETS & PLANETARY SYSTEMS
 06/05/1998 – 08/14/2001 FY99: \$0 Total: \$22,000
Prin. Invest.: R H BROWN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 – ASTRONOMY

NGT 5 50243 UNIVERSITY OF ARIZONA 1655
 PHYSICAL STUDIES OF NEA & TNO OBJECTS USING SPECTR OPHOTOME-
 TRY STUDENT: RONALD FEVIG
 06/02/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: U FINK
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50246 UNIVERSITY OF ARIZONA 1656
 DEVELOPMENT OF LASER MICROMACHINED COMPONENTS FOR SUBMILLI-
 METER HETERODYNE RECEIVERS (STUDENT CHRIS
 06/02/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: C WALKER
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

ARKANSAS

NAG 8 1284 ARKANSAS TECH UNIVERSITY 1657
 FOR RESEARCH "JOVE"
 01/21/1997 - 09/28/2000 FY99: \$0 Total: \$137,000
Prin. Invest.: M CONNOR, R NELSON, S JORDAN
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 98012 HENDRIX COLLEGE 1658
 NONINVASIVE DETECTION OF METALLIC IONS IN A HYBRID ROCKET
 PLUME
 07/17/1998 - 11/16/1999 FY99: \$0 Total: \$20,000
Prin. Invest.: R W DUNN
Tech. Officer: SSC/B ST. CYR
CASE Category: 13 - PHYSICS

NAG13 99016 HENDRIX COLLEGE 1659
 DETECTION OF SMALL MOLECULES IN HYBRID ROCKET MOTOR COMBUS-
 TION BY NEAR IR ABSORPTION
 05/24/1999 - 04/30/2001 FY99: \$20,000 Total: \$20,000
Prin. Invest.: M W TEAGUE
Tech. Officer: SSC/B ST. CYR
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 1061 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1660
 EFFECTS OF RESISTANCE TRAINING
 12/17/1998 - 01/01/2003 FY99: \$275,508 Total: \$275,508
Prin. Invest.: P A TESCH
Tech. Officer: JSC/C SAWIN
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG10 181 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1661
 SYNTHESIS & CHARACTERIZATION OF CROSS LINKABLE WATER BORNE
 POLYCONJUGATED SYSTEMS
 12/12/1995 - 09/30/1999 FY99: \$38,000 Total: \$244,000
Prin. Invest.: T VISWANATHAN
Tech. Officer: KSC/C BRYAN
CASE Category: 12 - CHEMISTRY

NCC 5 260 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1662
 ARKANSAS EPSCOR PROGRAM - THE ARKANSAS PLAN FOR ENHANCE-
 MENT OF AERO-SPACE RESEARCH AND ECONOMIC
 01/07/1998 - 07/31/2000 FY99: \$400,000 Total: \$1,400,000
Prin. Invest.: M HUDSON
Tech. Officer: HQ/D DETROYE
CASE Category: 11 - ASTRONOMY

NCC 5 404 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1663
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/14/1999 - 08/14/2000 FY99: \$225,000 Total: \$225,000
Prin. Invest.: K HUDSON
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCCW 55 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1664
 THE ARKANSAS PLAN FOR ENHANCEMENT OF AEROSPACE AND ECO-
 NOMIC DEVELOPMENT
 08/18/1994 - 12/31/1997 FY99: -\$8,278 Total: \$1,491,722
Prin. Invest.: G NORTHROP
Tech. Officer: HQ/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40036 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1665
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 04/17/1991 - 02/29/2000 FY99: -\$5,445 Total: \$998,555
Prin. Invest.: G M NORTHROP
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 2 52242 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1666
 VIRTUAL REALITY SIMULATION OF PHYSIOLOGICAL EFFECTS OF
 MICROGRAVITY
 07/28/1998 - 07/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C M COMPADRE
Tech. Officer: ARC/M D ROSS
CASE Category: 56 - MEDICAL

NGT 5 40063 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1667
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 03/24/1997 - 02/29/2000 FY99: \$256,250 Total: \$717,500
Prin. Invest.: G M NORTHROP
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT10 52618 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1668
 CAMERA BASED INSTRUMENTATION FOR MONITORING CLEANROOM CON-
 TAMINATION
 07/14/1998 - 07/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: A J ADAMS
Tech. Officer: KSC/P MOGAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT13 52707 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1669
 A STUDY OF THE APPLICATION OF RAMEN SPECTROSCOPY TO ROCKET
 DIAGNOSTICS
 05/23/1996 - 07/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: M K HUDSON
Tech. Officer: SSC/A JOYCE
CASE Category: 41 - AERONAUTICAL ENGR

NGT13 52718 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1670
 DESIGN OF HIGH TEMPERATURE PROBE FOR MASS SPECTROSCOPY OF
 HYBRID ROCKET PLUME
 07/13/1998 - 07/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C MEADORS
Tech. Officer: SSC/A JOYCE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 4317 UNIV OF ARKANSAS MAIN CAMPUS - FAYETTEVILLE 1671
 NATURAL THERMOLUMINESCENCE OF ANTARCTIC METEORITES
 04/09/1997 - 02/29/2000 FY99: \$66,667 Total: \$150,000
Prin. Invest.: D H BENOIT
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4718 UNIV OF ARKANSAS MAIN CAMPUS - FAYETTEVILLE 1672
 DELIVERING GEOGRAPHIC DECISION SUPPORT TECHNOLOGY ON-LINE
 ACCESS TO DIGITAL GEODATA PRODUCTS
 09/05/1997 - 09/30/1999 FY99: \$50,000 Total: \$250,000
Prin. Invest.: W LIMP
Tech. Officer: GSFC/A TUYAHOV
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 2 52243 UNIV OF ARKANSAS MAIN CAMPUS - FAYETTEVILLE 1673
 METHANOGENIC METABOLISM: IMPLICATIONS FOR MARS & EARLY EARTH
 07/28/1998 - 08/14/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: T A KRAL
Tech. Officer: ARC/C P MCKAY
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

CALIFORNIA

NAG 1 1975 CALIFORNIA INSTITUTE OF TECHNOLOGY 1674
 GLOBAL FAILURE MODES IN HIGH TEMPERATURE COMPOSITE STRUC-
 TURES
 11/25/1997 - 11/14/1999 FY99: \$64,058 Total: \$126,480
Prin. Invest.: W G KNAUSS
Tech. Officer: GSFC/J H STARNES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2151 CALIFORNIA INSTITUTE OF TECHNOLOGY 1675
 CHEMISTRY AND TRANSPORT IN A MULTI-DIMENSIONAL MODEL
 02/23/1999 - 12/31/2001 FY99: \$116,621 Total: \$116,621
Prin. Invest.: Y L YUNG
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1087 CALIFORNIA INSTITUTE OF TECHNOLOGY 1676
 APPLICATION OF DIGITAL PARTICLE IMAGE VELOCIMETRY & THERMOME-
 TRY TO TURBULENT CAVITY FLOW
 09/27/1996 - 05/31/1999 FY99: \$0 Total: \$65,000
Prin. Invest.: M GHARIB
Tech. Officer: ARC/Y C CHO
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1131 CALIFORNIA INSTITUTE OF TECHNOLOGY 1677
 AUTOMISTIC DESIGN & SIMULATIONS OF NANOSCALE MACHINES &
 ASSEMBLY
 06/11/1997 - 12/31/1999 FY99: \$73,442 Total: \$246,884
Prin. Invest.: W A GODDARD
Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1316 CALIFORNIA INSTITUTE OF TECHNOLOGY 1678
 RASCAL CONTROL LAW DESIGN USING CONDUIT
 04/02/1999 - 03/31/2000 FY99: \$9,999 Total: \$9,999
Prin. Invest.: D J BIEZAD
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1346 CALIFORNIA INSTITUTE OF TECHNOLOGY 1679
 EVOLUTION OF NEURAL CREST & PLACODES
 07/21/1999 - 01/14/2000 FY99: \$70,651 Total: \$70,651
Prin. Invest.: M BRONNER-FRASER
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1368 CALIFORNIA INSTITUTE OF TECHNOLOGY 1680
 TRANSCRIPTIONAL REGULATION & EVOLUTION OF BILATERAL BODY
 PLANS
 08/05/1999 - 12/31/1999 FY99: \$108,691 Total: \$108,691
Prin. Invest.: E M DAVIDSON
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1370 CALIFORNIA INSTITUTE OF TECHNOLOGY 1681
 TRANSCRIPTION FACTOR EVOLUTION & LYMPHOCYTE ORIGIN S
 08/05/1999 - 03/31/2000 FY99: \$63,101 Total: \$63,101
Prin. Invest.: E V ROTHENBERG
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1899 CALIFORNIA INSTITUTE OF TECHNOLOGY 1682
 PRECISE MEASUREMENTS OF THE DENSITY AND CRITICAL PHENOMENA OF
 HELIUM NEAR PHASE TRANSITIONS
 06/13/1996 - 06/12/2000 FY99: \$0 Total: \$44,000
Prin. Invest.: N YEHL
Tech. Officer: GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 2166 CALIFORNIA INSTITUTE OF TECHNOLOGY 1683
 INERTIAL EFFECTS IN SUSPENSION DYNAMICS
 05/08/1998 - 02/10/2002 FY99: \$75,000 Total: \$175,000
Prin. Invest.: J A WESTPHAL
Tech. Officer: GRC/F P CHIARAMONTE
CASE Category: 46 - MECHANICAL ENGR

NAG 5 1611 CALIFORNIA INSTITUTE OF TECHNOLOGY 1684
 EXTENSION OF THE WIDE FIELD OF VIEW PLANETARY CAMERA POST-LAUNCH
 SCIENCE AND ENGINEERING ACTIVITIES
 05/23/1991 - 09/30/1999 FY99: \$0 Total: \$12,647,480
Prin. Invest.: J A WESTPHAL
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 - ASTRONOMY

NAG 5 2782 CALIFORNIA INSTITUTE OF TECHNOLOGY 1685
 VARIABILITY OF SOLAR UV IRRADIANCE RELATED TO BRIG HT MAGNETIC
 FEATURES OBSERVED IN CALL K-LINE
 11/07/1994 - 09/30/1999 FY99: \$0 Total: \$236,199
Prin. Invest.: H ZIRIN
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3119 CALIFORNIA INSTITUTE OF TECHNOLOGY 1686
 TESTING THE ACCRETION PARADIGM WITH THE BATSE PULSAR DATABASE
 10/18/1995 - 10/31/1998 FY99: -\$13,139 Total: \$152,374
Prin. Invest.: R W NELSON, T PRINCE
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3239 CALIFORNIA INSTITUTE OF TECHNOLOGY 1687
 STUDIES OF PERIODIC AND APERIODIC VARIABILITY IN A CCRETING NEU-
 TRON STAR BINARY SYSTEMS
 05/21/1996 - 04/30/2000 FY99: \$110,000 Total: \$440,000
Prin. Invest.: T A PRINCE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3299 CALIFORNIA INSTITUTE OF TECHNOLOGY 1688
 OBSERVATION OF RADIO-LOUD BL LACERTAE OBJECTS AND SUPERLUMI-
 NAL AGN; 2) CORRELATED OBSERVATIONS OF ..
 08/09/1996 - 05/14/1999 FY99: \$0 Total: \$12,000
Prin. Invest.: R C LAMB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3340 CALIFORNIA INSTITUTE OF TECHNOLOGY 1689
 STUDY OF VERY RAPID PHENOMENA IN SCO X-1; 2) SEARC HES FOR MIL-
 LISECOND PULSATIONS IN LOW-MASS ...
 05/02/1996 - 10/31/1998 FY99: \$0 Total: \$70,839
Prin. Invest.: B VAUGHAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3465 CALIFORNIA INSTITUTE OF TECHNOLOGY 1690
 BOLOMETRIC ARRAY DETECTORS FOR SPACEBORNE ASTRONOM
 10/30/1996 - 08/31/1998 FY99: \$0 Total: \$234,842
Prin. Invest.: A E LANGE
Tech. Officer: GSFC/D HOLLAND
CASE Category: 11 - ASTRONOMY

NAG 5 3466 CALIFORNIA INSTITUTE OF TECHNOLOGY 1691
 INNOVATIVE RESEARCH PROGRAM. SILICON RADIATION DET
 01/31/1997 - 07/31/2000 FY99: \$0 Total: \$265,049
Prin. Invest.: R A MEWALDT
Tech. Officer: GSFC/D HOLLAND
CASE Category: 12 - CHEMISTRY

NAG 5 3560 CALIFORNIA INSTITUTE OF TECHNOLOGY 1692
 ISO BLOCK GRANT SUPPORT
 01/15/1997 - 12/31/1999 FY99: \$0 Total: \$514,487
Prin. Invest.: B T SOIFER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3644 CALIFORNIA INSTITUTE OF TECHNOLOGY 1693
 IMPACT AND COLLISIONAL PROCESSES IN THE SOLAR SYST
 02/12/1997 - 09/30/1999 FY99: \$200,000 Total: \$622,000
Prin. Invest.: T J AHRENS
Tech. Officer: GSFC/J G GRANT
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3765 CALIFORNIA INSTITUTE OF TECHNOLOGY 1694
 PLANETARY ORIGIN, EVOLUTION AND STRUCTURE
 02/11/1997 - 09/30/1999 FY99: \$89,016 Total: \$264,964
Prin. Invest.: D J STEVENSON
Tech. Officer: GSFC/P G RODGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3792 CALIFORNIA INSTITUTE OF TECHNOLOGY 1695
 RADAR AND MICROWAVE ASTRONOMY
 03/12/1997 - 11/30/1999 FY99: \$0 Total: \$155,183
Prin. Invest.: D O MUHLEMAN
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAG 5 3821 CALIFORNIA INSTITUTE OF TECHNOLOGY 1696
 VERY HIGH GAMMA-RAY STUDIES-COMPTON CYCLE 6
 01/14/1997 - 01/14/1999 FY99: \$0 Total: \$8,000
Prin. Invest.: R C LAMB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3834 CALIFORNIA INSTITUTE OF TECHNOLOGY 1697
 QUASAR EVOLUTION AND GRAVITATIONAL LENSES
 02/10/1997 - 02/14/1999 FY99: \$0 Total: \$80,000
Prin. Invest.: T KUNDIC
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3911 CALIFORNIA INSTITUTE OF TECHNOLOGY 1698
 MOLECULAR BEAM STUDIES OF STRATOSPHERIC PHOTOCHEMI
 02/26/1997 - 12/31/1999 FY99: \$50,041 Total: \$121,776
Prin. Invest.: D OKUMURA
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3924 CALIFORNIA INSTITUTE OF TECHNOLOGY 1699
 STUDIES OF ACCRETING BINARY PULSARS WITH BATSE
 02/19/1997 - 02/14/1998 FY99: -\$81 Total: \$44,256
Prin. Invest.: T A PRINCE
Tech. Officer: GSFC/N P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 4022 CALIFORNIA INSTITUTE OF TECHNOLOGY 1700
 PALEOENVIRONMENT ON MARS
 03/25/1997 - 09/30/1999 FY99: \$0 Total: \$90,000
Prin. Invest.: D YUNG
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4076 CALIFORNIA INSTITUTE OF TECHNOLOGY 1701
 GEOCHEMICAL AND ISOTOPIC INVESTIGATIONS OF LUNAR A
 03/26/1997 - 11/14/1999 FY99: \$0 Total: \$1,606,000
Prin. Invest.: D J WASSERBURG
Tech. Officer: GSFC/J BOYCE
CASE Category: 12 - CHEMISTRY

NAG 5 4079 CALIFORNIA INSTITUTE OF TECHNOLOGY 1702
 WIDE-FIELD IMAGING OF GALACTIC HALOS WITH A NEAR-IR TELESCOPE
 05/06/1997 - 09/30/1999 FY99: \$137,160 Total: \$453,260
 Prin. Invest.: P E LANGE
 Tech. Officer: GSFC/H THRONSON
 CASE Category: 11 - ASTRONOMY

NAG 5 4081 CALIFORNIA INSTITUTE OF TECHNOLOGY 1703
 BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF THE BACKGROUND
 ON ANGULAR SCALES OF 0.2 TO 40 DEGREES
 05/06/1997 - 12/31/1999 FY99: \$160,668 Total: \$465,540
 Prin. Invest.: P E LANGE
 Tech. Officer: GSFC/H THRONSON
 CASE Category: 11 - ASTRONOMY

NAG 5 4083 CALIFORNIA INSTITUTE OF TECHNOLOGY 1704
 DEVELOPMENT AND APPLICATION OF THE ION MICROPROBE FOR TERRESTRIAL
 MATERIALS
 03/10/1997 - 01/31/2000 FY99: \$150,000 Total: \$890,000
 Prin. Invest.: D J WASSERBURG
 Tech. Officer: HQ/J BOYCE
 CASE Category: 12 - CHEMISTRY

NAG 5 4093 CALIFORNIA INSTITUTE OF TECHNOLOGY 1705
 RESEARCH IN GRAVITATIONAL ASTROPHYSICS
 03/10/1997 - 12/31/1999 FY99: \$42,000 Total: \$99,000
 Prin. Invest.: P LINDBLOM
 Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 4097 CALIFORNIA INSTITUTE OF TECHNOLOGY 1706
 NOVEL, COMPACT UV/VIS & VUV COHERENT LIGHT SOURCES SPECTROSCOPY
 OF POTENTIAL DIB CARRIERS
 03/10/1997 - 03/14/2000 FY99: \$75,000 Total: \$225,000
 Prin. Invest.: P A BLAKE
 Prin. Invest.: NONE
 Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 4191 CALIFORNIA INSTITUTE OF TECHNOLOGY 1707
 DYNAMICS OF PLANETARY ATMOSPHERES
 06/27/1997 - 11/30/1999 FY99: \$60,000 Total: \$245,000
 Prin. Invest.: D P INGERSOLL
 Tech. Officer: GSFC/J BERGSTRALH
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4196 CALIFORNIA INSTITUTE OF TECHNOLOGY 1708
 DEVELOPMENT OF A SUBMILLIMETER-WAVELENGTH IMMERSED
 03/17/1997 - 02/29/2000 FY99: \$89,300 Total: \$174,483
 Prin. Invest.: D SERABYN
 Tech. Officer: GSFC/H THRONSON
 CASE Category: 11 - ASTRONOMY

NAG 5 4203 CALIFORNIA INSTITUTE OF TECHNOLOGY 1709
 A DISTRIBUTED OUT-OF-CORE TOOL FOR SPATIAL AND TEM HALOS FROM
 COSMOLOGICAL N-BODY SIMULATION DATA
 03/17/1997 - 02/29/2000 FY99: \$0 Total: \$250,000
 Prin. Invest.: D L STERLING
 Tech. Officer: GSFC/J BREDEKAMP
 CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4206 CALIFORNIA INSTITUTE OF TECHNOLOGY 1710
 IMPACT CRATERING CALCULATIONS
 03/15/1997 - 09/30/1999 FY99: \$68,000 Total: \$224,000
 Prin. Invest.: T J AHRENS
 Tech. Officer: GSFC/J G GRANT
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4230 CALIFORNIA INSTITUTE OF TECHNOLOGY 1711
 THEORETICAL AND EXPERIMENTAL STUDIES OF THE ISOTOPIC SOLAR
 GRAINS FROM PRIMITIVE METEORITES
 03/24/1997 - 04/30/1999 FY99: \$22,551 Total: \$97,551
 Prin. Invest.: D J WASSERBURG
 Tech. Officer: GSFC/D NAVA
 CASE Category: 11 - ASTRONOMY

NAG 5 4307 CALIFORNIA INSTITUTE OF TECHNOLOGY 1712
 EXPERIMENTAL AND MODELING STUDIES OF THE CHEMISTRY
 04/01/1997 - 09/30/1999 FY99: \$0 Total: \$50,000
 Prin. Invest.: D S BURNETT
 Tech. Officer: GSFC/D NAVA
 CASE Category: 11 - ASTRONOMY

NAG 5 4318 CALIFORNIA INSTITUTE OF TECHNOLOGY 1713
 EXPERIMENTAL STUDIES OF PHASE EQUILIBRIA OF METEOR INTERIORS
 04/04/1997 - 02/28/2000 FY99: \$187,500 Total: \$441,000
 Prin. Invest.: D M STOLPER
 Tech. Officer: GSFC/D NAVA
 CASE Category: 11 - ASTRONOMY

NAG 5 4319 CALIFORNIA INSTITUTE OF TECHNOLOGY 1714
 EXPERIMENTAL AND ANALYTICAL STUDIES OF SOLAR SYSTEM
 04/04/1997 - 01/31/2000 FY99: \$148,750 Total: \$350,000
 Prin. Invest.: D S BURNETT
 Tech. Officer: GSFC/D NAVA
 CASE Category: 11 - ASTRONOMY

NAG 5 4347 CALIFORNIA INSTITUTE OF TECHNOLOGY 1715
 MICRO-PENETRATOR SEARCH FOR LAKE DEPOSITED MINERAL
 04/14/1997 - 03/31/1999 FY99: \$0 Total: \$20,000
 Prin. Invest.: D C MURRAY
 Tech. Officer: GSFC/J M BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4378 CALIFORNIA INSTITUTE OF TECHNOLOGY 1716
 MILLISECOND PULSARS AND PLANETARY SYSTEMS
 04/24/1997 - 09/30/1998 FY99: -\$416 Total: \$99,585
 Prin. Invest.: D R ULKARNI
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4383 CALIFORNIA INSTITUTE OF TECHNOLOGY 1717
 A LABORATORY AND OBSERVATIONAL STUDY OF THE CHEMICAL STELLAR
 NEBULAE
 05/06/1997 - 02/28/2000 FY99: \$53,333 Total: \$120,000
 Prin. Invest.: P A BLAKE
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4437 CALIFORNIA INSTITUTE OF TECHNOLOGY 1718
 PARTICIPATION OF D.O. MUHLEMAN AS A CO-INVESTIGATOR OBSERVER
 LASER ALTIMETER (MOLA) TEAM
 04/28/1997 - 12/31/1999 FY99: \$93,980 Total: \$253,774
Prin. Invest.: D O MUHLEMAN
Tech. Officer: GSFC/D E SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4599 CALIFORNIA INSTITUTE OF TECHNOLOGY 1719
 MILLIMETER INTERFEROMETRY OF PROTO-PLANETARY DISKS
 06/06/1997 - 03/31/2000 FY99: \$146,500 Total: \$305,914
Prin. Invest.: D I SARGENT
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4614 CALIFORNIA INSTITUTE OF TECHNOLOGY 1720
 ANALYSIS OF SYNTHETIC APERTURE RADAR IMAGES OF MA
 05/19/1997 - 02/28/1999 FY99: \$0 Total: \$52,979
Prin. Invest.: D O MUHLEMAN
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4692 CALIFORNIA INSTITUTE OF TECHNOLOGY 1721
 LABORATORY STUDIES OF THE PHOTOPHYSICS AND PHOTOCHEMICAL REACTIONS
 06/20/1997 - 12/31/1999 FY99: \$0 Total: \$57,000
Prin. Invest.: P A BLAKE
Tech. Officer: GSFC/G STRINGFELLOW
CASE Category: 11 - ASTRONOMY

NAG 5 4715 CALIFORNIA INSTITUTE OF TECHNOLOGY 1722
 ION MICROPROBE MEASUREMENTS OF C IN METAL IN PRIMA APPROACH
 TO CONSTRAINING C/O RATIOS IN NEBULAR ENVIRONMENT
 06/23/1997 - 09/30/1998 FY99: -\$1,961 Total: \$38,039
Prin. Invest.: D M STOLPER
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4773 CALIFORNIA INSTITUTE OF TECHNOLOGY 1723
 APPLICATION OF STABLE ISOTOPE MEASUREMENTS TO THE D HISTORY
 OF METEORITES
 06/05/1997 - 11/30/1998 FY99: -\$1,645 Total: \$78,299
Prin. Invest.: D EPSTEIN
Tech. Officer: GSFC/D F NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4890 CALIFORNIA INSTITUTE OF TECHNOLOGY 1724
 QUASI-OPTICAL SIS MIXER DEVELOPMENT
 07/08/1997 - 03/31/2000 FY99: \$76,792 Total: \$365,266
Prin. Invest.: D S ZMUIDZINAS
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 5052 CALIFORNIA INSTITUTE OF TECHNOLOGY 1725
 GLOBAL MAPPING OF THE INTERSTELLAR MEDIUM IN THE FAR-ULTRAVIOLET
 01/24/1996 - 12/31/1999 FY99: \$380,000 Total: \$1,396,089
Prin. Invest.: C MARTIN
Tech. Officer: GSFC/R H PLESS
CASE Category: 11 - ASTRONOMY

NAG 5 5067 CALIFORNIA INSTITUTE OF TECHNOLOGY 1726
 PROGRAM TO STUDY BE-10 AND OTHER LIGHT ISOTOPES IN THE COSMIC
 RADIATION
 05/03/1996 - 11/30/1999 FY99: \$0 Total: \$1,127,462
Prin. Invest.: R A MEWALDT, E C STONE
Tech. Officer: GSFC/H C NEDDELMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5128 CALIFORNIA INSTITUTE OF TECHNOLOGY 1727
 HIGH ENERGY FOCUSSED TELESCOPE (HEFT)
 06/19/1997 - 06/22/2000 FY99: \$540,000 Total: \$1,344,700
Prin. Invest.: J GRINDLEY
Tech. Officer: GSFC/H NEDDELMAN
CASE Category: 11 - ASTRONOMY

NAG 5 5152 CALIFORNIA INSTITUTE OF TECHNOLOGY 1728
 BOLT - CALTECH CONTRIBUTION TO CONCEPT STUDY
 12/16/1997 - 05/16/1998 FY99: \$0 Total: \$87,000
Prin. Invest.: F HARRISON
Tech. Officer: GSFC/F NELSON
CASE Category: 11 - ASTRONOMY

NAG 5 5166 CALIFORNIA INSTITUTE OF TECHNOLOGY 1729
 INTEGRATED-CIRCUIT READOUT FOR THE ACCESS SILICON ARRAY
 03/26/1998 - 12/31/1999 FY99: \$26,000 Total: \$69,820
Prin. Invest.: R A MEWALDT
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5203 CALIFORNIA INSTITUTE OF TECHNOLOGY 1730
 ULTRA HEAVY AND HEAVY COSMIC-RAY MEASUREMENTS ON ACCESS
 08/29/1998 - 08/31/1999 FY99: \$88,067 Total: \$88,067
Prin. Invest.: R A MEWALDT
Tech. Officer: GSFC/B A MERRITT
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 5207 CALIFORNIA INSTITUTE OF TECHNOLOGY 1731
 TWO-DIMENSIONAL HILBERT-HUANG TRANSFORM METHOD FOR DATA
 ANALYSIS
 08/27/1998 - 09/14/2000 FY99: \$96,988 Total: \$96,988
Prin. Invest.: T Y WU
Tech. Officer: GSFC/S R LONG, GSFC/N E HUANG
CASE Category: 33 - OCEANOGRAPHY

NAG 5 5216 CALIFORNIA INSTITUTE OF TECHNOLOGY 1732
 A PROPOSAL FOR CONVERSION OF THE TRANS-IRON GALACTIC ELEMENT
 RECORDER (TIGER) PI STONE
 12/01/1998 - 12/31/1999 FY99: \$76,156 Total: \$76,156
Prin. Invest.: E C STONE
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5227 CALIFORNIA INSTITUTE OF TECHNOLOGY 1733
 FIRST INCREMENTAL FUNDING FOR NAG5-5227 PI DR. EDWARD C. STONE
 03/29/1999 - 03/25/2002 FY99: \$196,000 Total: \$196,000
Prin. Invest.: E C STONE
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5228 CALIFORNIA INSTITUTE OF TECHNOLOGY 1734
 FIRST YEAR FUNDING FOR NAG5-5228 PI DR. EDWARD C STONE
 03/29/1999 - 03/25/2002 FY99: \$73,932 Total: \$73,932
Prin. Invest.: E C STONE
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6173 CALIFORNIA INSTITUTE OF TECHNOLOGY 1735
 PRECISION SOLAR DISK PHOTOMETRY — A TOOL FOR UNDERSTANDING THE SUN'S LUMINOSITY
 08/26/1997 - 05/31/2000 FY99: \$44,916 Total: \$108,407
Prin. Invest.: D G LIBBRECHT
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6225 CALIFORNIA INSTITUTE OF TECHNOLOGY 1736
 PALEOMAGNETIC AND ROCK CONSTRAINTS ON THE THERMAL METEORITE ALH84001
 08/25/1997 - 07/31/2000 FY99: \$55,000 Total: \$120,000
Prin. Invest.: J L KIRSCHVINK
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6263 CALIFORNIA INSTITUTE OF TECHNOLOGY 1737
 PHOTOCHEMICAL STUDIES OF CHEMISTRY IN OUTER SOLAR SYSTEM
 08/21/1997 - 12/31/1999 FY99: \$82,012 Total: \$237,012
Prin. Invest.: D L YUNG
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6402 CALIFORNIA INSTITUTE OF TECHNOLOGY 1738
 THE ORIGIN AND EVOLUTION OF NEUTRON STARS (LTSA)
 10/15/1997 - 10/31/1999 FY99: \$133,000 Total: \$203,000
Prin. Invest.: S KULKARNI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6573 CALIFORNIA INSTITUTE OF TECHNOLOGY 1739
 US PARTICIPATION IN PLANCK, HFI PORTION
 11/18/1997 - 07/31/2000 FY99: \$746,000 Total: \$1,379,000
Prin. Invest.: D E LANGE
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 6816 CALIFORNIA INSTITUTE OF TECHNOLOGY 1740
 SUBMILLIMETER WAVELENGTH SPECTROSCOPY AND IMAGING OF THE PLANETS
 01/07/1998 - 02/29/2000 FY99: \$47,354 Total: \$93,724
Prin. Invest.: E SERABYN
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 6840 CALIFORNIA INSTITUTE OF TECHNOLOGY 1741
 LOW-FREQUENCY GRAVITATIONAL-WAVE SOURCES AND THEIR IMPLICATIONS FOR FUTURE NASA MISSIONS
 01/09/1998 - 12/31/1999 FY99: \$68,000 Total: \$136,000
Prin. Invest.: K THORNE
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 6912 CALIFORNIA INSTITUTE OF TECHNOLOGY 1742
 MODE AND OF THE ADVANCED COMPOSITION EXPLORER MISSION
 01/30/1998 - 01/31/2000 FY99: \$4,420,375 Total: \$8,826,415
Prin. Invest.: E STONE
Tech. Officer: GSFC/B WORRALL
CASE Category: 11 - ASTRONOMY

NAG 5 6941 CALIFORNIA INSTITUTE OF TECHNOLOGY 1743
 THE ACCRETION HISTORY OF EXTRATERRESTRIAL MATTER OVER GEOLOGIC TIME FROM THE SEAFLOOR SEDIMENTS
 02/06/1998 - 03/31/2000 FY99: \$44,100 Total: \$88,243
Prin. Invest.: K A FARLEY
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6955 CALIFORNIA INSTITUTE OF TECHNOLOGY 1744
 ASCA PROPOSAL - OBSERVATIONS OF THE CRAB-LIKE PULSAR
 54.1+0.3
 02/06/1998 - 01/31/1999 FY99: \$0 Total: \$16,200
Prin. Invest.: S R KULKARNI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6981 CALIFORNIA INSTITUTE OF TECHNOLOGY 1745
 BROWN DWARFS: DETECTION AND DETAILED STUDIES
 02/06/1998 - 02/14/2000 FY99: \$63,000 Total: \$126,000
Prin. Invest.: S KULKARNI
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7007 CALIFORNIA INSTITUTE OF TECHNOLOGY 1746
 BLACK HOLE ASTROPHYSICS - ATP
 02/11/1998 - 02/14/2000 FY99: \$84,414 Total: \$174,195
Prin. Invest.: R BLANDFORD
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7008 CALIFORNIA INSTITUTE OF TECHNOLOGY 1747
 SPECTRAL ENERGY DISTRIBUTION OF T TAURI DISKS - ATP
 02/18/1998 - 02/28/2000 FY99: \$54,707 Total: \$87,145
Prin. Invest.: P M GOLDBREICH
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7034 CALIFORNIA INSTITUTE OF TECHNOLOGY 1748
 ORIGIN AND EVOLUTION OF THE SPINS AND FIELDS OF WHITE DWARFS, NEUTRON STARS AND BLACK HOLES - ATP
 02/18/1998 - 02/14/1999 FY99: \$0 Total: \$79,414
Prin. Invest.: E PHINNEY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7081 CALIFORNIA INSTITUTE OF TECHNOLOGY 1749
 ADVANCED SPACE PARTICLE ANALYSIS SYSTEM
 03/10/1998 - 10/31/1999 FY99: \$53,086 Total: \$127,407
Prin. Invest.: J BEAUCHAMP
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 7166 CALIFORNIA INSTITUTE OF TECHNOLOGY 1750
 HIGHER FLUX FROM THE YOUNG SUN AS AN EXPLANATION FOR WARM
 TEMPERATURES FOR EARLY EARTH AND MARS
 03/16/1998 - 04/14/2000 FY99: \$77,751 Total: \$119,354
Prin. Invest.: I SACKMANN
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7229 CALIFORNIA INSTITUTE OF TECHNOLOGY 1751
 XTE PROPOSAL - TORQUE-LUMINOSITY STUDIES OF THE AC CRETING
 PULSAR CEN X-3
 04/14/1998 - 04/14/1999 FY99: \$0 Total: \$3,300
Prin. Invest.: T A PRINCE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7230 CALIFORNIA INSTITUTE OF TECHNOLOGY 1752
 STUDY OF TROPOSPHERIC OZONE AND UV REFLECTIVITY USING TOMS
 DATA
 04/16/1998 - 12/31/1999 FY99: \$58,233 Total: \$137,233
Prin. Invest.: Y L YUNG
Tech. Officer: GSFC/E HILSEN RATH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7268 CALIFORNIA INSTITUTE OF TECHNOLOGY 1753
 STUDIES OF ACCRETING BINARY PULSARS WITH BATSE
 04/15/1998 - 04/14/1999 FY99: \$0 Total: \$12,000
Prin. Invest.: B VAUGHAN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7422 CALIFORNIA INSTITUTE OF TECHNOLOGY 1754
 XTE PROPOSAL (30182) SIMULTANEOUS X-RAY/INFRARED/RADIO
 OBSERVATIONS OF GRS1915+105
 06/02/1998 - 12/14/1998 FY99: -\$6,862 Total: \$1,404
Prin. Invest.: S S EIKENBERRY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7501 CALIFORNIA INSTITUTE OF TECHNOLOGY 1755
 THE STELLAR POPULATIONS EMERGING FROM MOLECULAR CLOUDS AND
 THEIR SURVIVAL TIMES OF (PROTO)PLA
 06/02/1998 - 05/31/2000 FY99: \$16,100 Total: \$31,100
Prin. Invest.: D HILLENBRAND
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7527 CALIFORNIA INSTITUTE OF TECHNOLOGY 1756
 DEVELOPMENT OF AN AIRCRAFT-BORNE INSTRUMENT FOR MEASUREMENT
 OF NITRIC ACID
 06/09/1998 - 12/31/1999 FY99: \$324,914 Total: \$557,538
Prin. Invest.: P WENNBERG
Tech. Officer: GSFC/P DECOLA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7680 CALIFORNIA INSTITUTE OF TECHNOLOGY 1757
 VARIABILITY OF CLOUDS OVER A SOLAR CYCLE YEAR 1 OF A 3 YEAR
 GRANT
 09/17/1998 - 09/30/2000 FY99: \$81,000 Total: \$158,878
Prin. Invest.: Y L YUNG
Tech. Officer: GSFC/M CHOU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8049 CALIFORNIA INSTITUTE OF TECHNOLOGY 1758
 ATMOSPHERIC DYNAMICS AND AURORAL PHENOMENA DERIVED FROM
 GALILEO IMAGES
 01/15/1999 - 01/14/2000 FY99: \$62,250 Total: \$62,250
Prin. Invest.: D P INGERSOLL
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8110 CALIFORNIA INSTITUTE OF TECHNOLOGY 1759
 RXTE SEARCH FOR LONG-LIVED AFTERFLOWS FROM GAMMA RAY
 BURSTS
 02/11/1999 - 02/14/2000 FY99: \$5,000 Total: \$5,000
Prin. Invest.: S R KULKARNI, NONE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 8124 CALIFORNIA INSTITUTE OF TECHNOLOGY 1760
 EXPLORING THE GAMMA-RAY SKY ABOVE 1 GEV
 01/29/1999 - 01/31/2000 FY99: \$3,067 Total: \$3,067
Prin. Invest.: R C LAMB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8217 CALIFORNIA INSTITUTE OF TECHNOLOGY 1761
 STAR FORMATION IN GIANT MOLECULAR CLOUDS_L TSA98
 02/08/1999 - 02/14/2000 FY99: \$51,206 Total: \$51,206
Prin. Invest.: J M CARPENTER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8251 CALIFORNIA INSTITUTE OF TECHNOLOGY 1762
 GEOCHEMICAL AND ISOTOPIC INVESTIGATIONS OF LUNAR & PLANETARY
 MATERIALS
 02/10/1999 - 02/14/2000 FY99: \$345,000 Total: \$345,000
Prin. Invest.: D A PAPANASTASSIOU
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8318 CALIFORNIA INSTITUTE OF TECHNOLOGY 1763
 MILLISECOND PULSARS AND PLANETARY SYSTEMS
 03/30/1999 - 09/30/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: S R KULKARNI
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8463 CALIFORNIA INSTITUTE OF TECHNOLOGY 1764
 LONG TERM MONITORING OF THE IO PLASMA TORUS DURING THE GALILEO
 ENCOUNTER PERIOD
 04/19/1999 - 05/31/2000 FY99: \$80,000 Total: \$80,000
Prin. Invest.: M E BROWN
Tech. Officer: GSFC/D VEANS
CASE Category: 11 - ASTRONOMY

NAG 5 8535 CALIFORNIA INSTITUTE OF TECHNOLOGY 1765
 HIGH RESOLUTION, HIGH ENERGY FOCUSING OPTICS FOR THE NEXT
 GENERATION GAMMA RAY EXPLORER.
 07/08/1999 - 07/14/2000 FY99: \$270,852 Total: \$270,852
Prin. Invest.: F A HARRISON
Tech. Officer: GSFC/G MUCKLOW
CASE Category: 13 - PHYSICS

NAG 5 8576 CALIFORNIA INSTITUTE OF TECHNOLOGY 1766
 NEW GRANT: YEAR 1 OF 2 FOR "A BEOWULF SYSTEM SOFTWARE INITIATIVE"
 05/27/1999 - 05/31/2000 FY99: \$74,988 Total: \$74,988
Prin. Invest.: T STERLING
Tech. Officer: GSFC/J FISCHER
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 8743 CALIFORNIA INSTITUTE OF TECHNOLOGY 1767
 VERY HIGH SPECTRAL & SPATIAL RESOLUTION GE DETECTORS & READ-
 OUT ELECTRONICS FORWARD X-RAY ASTRONOMY
 08/20/1999 - 08/31/2000 FY99: \$122,160 Total: \$122,160
Prin. Invest.: S BOGGS
Tech. Officer: GSFC/F A HERRERO
CASE Category: 11 - ASTRONOMY

NAG 5 8822 CALIFORNIA INSTITUTE OF TECHNOLOGY 1768
 SPECTROSCOPIC STUDIES OF PRE-BIOTIC CARBON CHEMISTRY
 09/08/1999 - 08/31/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: G BLAKE
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1182 CALIFORNIA INSTITUTE OF TECHNOLOGY 1769
 A/C CALORIMETRY AND THERMOPHYSICAL PROPERTIES OF BULK GLASS
 METALLIC LIQUIDS
 11/09/1995 - 10/31/1998 FY99: \$0 Total: \$525,000
Prin. Invest.: W JOHNSON
Tech. Officer: MSFC/T DCLOACH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1237 CALIFORNIA INSTITUTE OF TECHNOLOGY 1770
 DISPERSION MICROSTRUCTURE AND RHEOLOGY IN CERAMICS PROCESSING
 04/22/1996 - 04/21/2000 FY99: \$75,000 Total: \$268,506
Prin. Invest.: D F BRADY
Tech. Officer: MSFC/P DOTY, MSFC/R POWER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1013 CALIFORNIA INSTITUTE OF TECHNOLOGY 1771
 GENESIS DISCOVERY MISSION PHASE B
 05/13/1998 - 08/24/2001 FY99: \$21,596 Total: \$186,513
Prin. Invest.: D S BURNETT
Tech. Officer: JSC/E K STANSBERRY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 107 CALIFORNIA INSTITUTE OF TECHNOLOGY 1772
 DEVELOPMENT OF INSB DETECTORS FOR SUBMILLIMETER ASTR
 11/01/1980 - 09/30/1997 FY99: \$0 Total: \$2,091,148
Prin. Invest.: T G PHILLIPS
Tech. Officer: HQ/F C GILLET, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 1972 CALIFORNIA INSTITUTE OF TECHNOLOGY 1773
 RESEARCH IN SOLAR MAGNETISM & SOLAR ACTIVITY
 02/15/1990 - 12/31/1998 FY99: \$0 Total: \$2,272,805
Prin. Invest.: H ZIRIN
Tech. Officer: HQ/J D BOHLIN, HQ/S KANE
CASE Category: 13 - PHYSICS

NAGW 3592 CALIFORNIA INSTITUTE OF TECHNOLOGY 1774
 EXPER. AND ANAL. STUD. OF SOLAR SYSTEM CHEMISTRY
 05/14/1993 - 01/31/1998 FY99: \$0 Total: \$470,454
Prin. Invest.: D S BURNETT
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3883 CALIFORNIA INSTITUTE OF TECHNOLOGY 1775
 NAGW-3883/B CALIF. INST. OF TECH. "APPL. OF STABLE ISOT. MEASUREMENT TO THE STUDY OF THE ORIGIN."
 03/08/1994 - 09/30/1997 FY99: \$0 Total: \$318,102
Prin. Invest.: S EPSTEIN
Tech. Officer: HQ/J BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3994 CALIFORNIA INSTITUTE OF TECHNOLOGY 1776
 STUDIES OF IMAGING TECHNIQUES FOR HIGH-RESOLUTION IMAGING OF
 SOLAR HARD X-RAYS AND GAMMA-RAYS
 06/07/1994 - 12/31/1997 FY99: \$0 Total: \$140,426
Prin. Invest.: G J HURFORD
Tech. Officer: HQ/W J WAGNER, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4030 CALIFORNIA INSTITUTE OF TECHNOLOGY 1777
 MILLIMETER INTERFEROMETRY OF PROTO-PLANETARY DISKS
 06/03/1994 - 03/31/1998 FY99: \$0 Total: \$422,033
Prin. Invest.: A SARGENT
Tech. Officer: HQ/P ROGERS
CASE Category: 11 - ASTRONOMY

NAGW 4182 CALIFORNIA INSTITUTE OF TECHNOLOGY 1778
 INSTRUMENTS FOR THE DISCOVERY SOLAR WIND SAMPLE RETURN MISSION
 10/26/1994 - 06/30/1998 FY99: \$0 Total: \$395,000
Prin. Invest.: D S BURNETT, NONE
Tech. Officer: HQ/T KOSTIUK
CASE Category: 11 - ASTRONOMY

NAS 3 27263 CALIFORNIA INSTITUTE OF TECHNOLOGY 1779
 SOLUTE NUCLEATION & GROWTH IN SUPERCRITICAL FLUID MIXTURES
 08/18/1994 - 04/17/1999 FY99: \$0 Total: \$174,958
Prin. Invest.: G T SMEDLEY, G WILEMSKI
Tech. Officer: GRC/G A ZIMMERK
CASE Category: 43 - CHEMICAL ENGR

NAS 5 32626 CALIFORNIA INSTITUTE OF TECHNOLOGY 1780
 PHASE C/D DESIGN & DEVELOPMENT OF THE ADVANCED COMPOSITION
 EXPLORER (ACE) SCIENCE PAYLOAD
 01/03/1994 - 09/30/1998 FY99: \$0 Total: \$36,903,660
Prin. Invest.: E STONE
Tech. Officer: GSFC/J LAUDADIO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 5 32642 CALIFORNIA INSTITUTE OF TECHNOLOGY 1781
 HIGH RESOLUTION IRAS MAPS OF THE GALAXY AT 60 & 100 MICRONS
 09/20/1994 - 10/19/1998 FY99: \$0 Total: \$232,606
Prin. Invest.: T A PRINCE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAS 5 98034 CALIFORNIA INSTITUTE OF TECHNOLOGY 1782
 PHASE A STUDY FOR GALE X (GALAXY EVOLUTION EXPLORER) INVESTIGATION
 12/05/1997 - 09/30/2004 FY99: \$15,951,000 Total: \$20,364,000
Prin. Invest.: C MARTIN
Tech. Officer: GSFC/F SNOW
CASE Category: 11 - ASTRONOMY

NAS 5 98152 CALIFORNIA INSTITUTE OF TECHNOLOGY 1783
 CONSTELLATION X-RAY MISSION
 06/22/1998 - 09/30/1999 FY99: \$99,970 Total: \$314,970
Prin. Invest.: F HARRISON
Tech. Officer: GSFC/J GRADY
CASE Category: 46 - MECHANICAL ENGR

NCC 2 954 CALIFORNIA INSTITUTE OF TECHNOLOGY 1784
 PETAFLOPS WORKSHOPS
 06/07/1996 - 03/31/1999 FY99: \$0 Total: \$302,000
Prin. Invest.: P MASSINA
Tech. Officer: ARC/J B HOFMAN, ARC/W J FEIEREISEN
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5271 CALIFORNIA INSTITUTE OF TECHNOLOGY 1785
 WAVELET METHODS FOR RAPID, HIERARCHICAL INTERROGATION OF LARGE CFD DATA SETS
 06/25/1998 - 12/31/1999 FY99: \$0 Total: \$51,116
Prin. Invest.: P SCHRODER
Tech. Officer: ARC/M J GERALD-YAMASAKI, ARC/A VAZUIRI
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 242 CALIFORNIA INSTITUTE OF TECHNOLOGY 1786
 TOPOGRAPHIC RESPONSE TO THE YAKUTAT BLOCK COLLISION
 10/02/1997 - 09/30/1998 FY99: -\$471 Total: \$11,486
Prin. Invest.: J STOCK
Tech. Officer: GSFC/J M SAUBER
CASE Category: 32 - GEOLOGICAL SCIENCE

NCC 8 119 CALIFORNIA INSTITUTE OF TECHNOLOGY 1787
 R/S PHYSICAL PROPERTIES AND PROCESSING OF UNDER-COOLED METALLIC GLASS FORMING LIQUIDS
 11/11/1996 - 01/31/2000 FY99: \$130,000 Total: \$450,000
Prin. Invest.: W L JOHNSON
Prin. Invest.: NONE
Tech. Officer: MSFC/A C DELOACH
CASE Category: 49 - ENGINEERING, OTHER

NCCW 62 CALIFORNIA INSTITUTE OF TECHNOLOGY 1788
 KECK OBSERVATORY COLLABORATION
 09/30/1994 - 09/30/2000 FY99: \$3,400,000 Total: \$34,000,000
Prin. Invest.: E STONE
Tech. Officer: HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NGT 30329 CALIFORNIA INSTITUTE OF TECHNOLOGY 1789
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/07/1995 - 08/31/1998 FY99: \$0 Total: \$44,000
Prin. Invest.: Y L YUNG
Tech. Officer: HQ/R A SCHIFFER, HQ/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 2 52240 CALIFORNIA INSTITUTE OF TECHNOLOGY 1790
 ANNUAL TELLURIDE WORKSHOP ON NEUROMORPHIC ENGINEERING
 05/01/1998 - 09/30/1998 FY99: \$0 Total: \$30,000
Prin. Invest.: C KOCH
Tech. Officer: ARC/S F ZPRNETZER, ARC/A R GROSS
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 30068 CALIFORNIA INSTITUTE OF TECHNOLOGY 1791
 EL NINO PREDICTABILITY: CAN OBSERVATIONS BE USED TO MODEL
 09/09/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: Y YUNG
Tech. Officer: GSFC/M WEI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30096 CALIFORNIA INSTITUTE OF TECHNOLOGY 1792
 THE ISOTOPIC COMPOSITION OF STRATOSPHERIC AND UPPER ATMOSPHERIC AS A TRACER OF TROPOSPHERE-STRATOSPHERE EXCHANGE/M
 09/10/1997 - 08/31/2000 FY99: \$0 Total: \$22,000
Prin. Invest.: Y L YUNG
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30135 CALIFORNIA INSTITUTE OF TECHNOLOGY 1793
 SAR INTERFEROMETRIC CONSTRAINTS ON ICE CAP MASS BALANCE AND DYNAMICS IN ICELAND/STUDENT: GERBI
 09/04/1998 - 08/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: M SIMONS
Prin. Invest.: NONE
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30138 CALIFORNIA INSTITUTE OF TECHNOLOGY 1794
 CRUCIAL DESERTIFICATION PROCESSES FOR MONITORING ARID LANDS
 08/27/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: B C MURRAY, OKIN, NONE
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50006 CALIFORNIA INSTITUTE OF TECHNOLOGY 1795
 DEVELOPMENT OF MULTILAYER FOCUSSED TELESCOPE FOR THE HARD X-RAY BAND
 11/25/1996 - 09/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: F A HARRISON
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 13 - PHYSICS

NGT 5 50045 CALIFORNIA INSTITUTE OF TECHNOLOGY 1796
 INTEGRAL FIELD SPECTROSCOPY OF ULTRALUMINOUS INFRARED
 08/05/1997 - 09/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: B SOIFER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50200 CALIFORNIA INSTITUTE OF TECHNOLOGY 1797
 LABORATORY STUDY OF REACTIONS IMPORTANT IN THE FORMATION OF
 TROPOSPHERIC OZONE AND THE DEVELOPMENT
 06/24/1998 - 09/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: M OKUMURA
Tech. Officer: HQ/A NURRIDIN
CASE Category: 12 - CHEMISTRY

NGT 5 50215 CALIFORNIA INSTITUTE OF TECHNOLOGY 1798
 FROM EARTH TO ORBIT: UTILIZING THE DIGITIZED PALOMAR SKY SURVEY
 IN NASA MISSIONS (STUDENT: ROY GAL
 07/22/1998 - 07/31/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: S G DJORGOVSKI
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50231 CALIFORNIA INSTITUTE OF TECHNOLOGY 1799
 CHEMICAL PROCESSES IN CIRCUMSTELLAR ACCRETION DISKS (STUDENT:
 JACQUELINE KESSLER
 05/27/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: G BLAKE
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50249 CALIFORNIA INSTITUTE OF TECHNOLOGY 1800
 OBSERVATIONS OF CMB ANISOTROPIES WITH THE ARCADE COSMOLOGICAL
 BOLOMETRIC ARRAY RECEIVER (STUDENT: MA
 06/04/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: A LANGE
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 60003 CALIFORNIA INSTITUTE OF TECHNOLOGY 1801
 A SUMMER RESEARCH PROGRAM OF NASA SUMMER FACULTY F
 09/23/1997 - 04/30/2000 FY99: \$340,064 Total: \$1,059,999
Prin. Invest.: A ALBEE
Tech. Officer: GSFC/S MCGEE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1024 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1802
 MULTICRITERIA GAIN TUNING FOR ROTORCRAFT FLIGHT CONTROLS
 01/29/1996 - 09/30/1997 FY99: -\$15 Total: \$43,776
Prin. Invest.: D BIEZAD
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1092 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1803
 DESIGN AIRCRAFT FLIGHT CONTROL SYSTEMS USING THE CONDUIT
 DEVELOPMENT PROGRAM
 11/21/1996 - 12/31/1999 FY99: \$56,031 Total: \$107,009
Prin. Invest.: D BIEZAD
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1169 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1804
 CONDUIT SPECIFICATIONS DEVELOPMENT FOR CRUISE FLIGHT OPERA-
 TIONS
 12/03/1997 - 10/31/1999 FY99: \$40,000 Total: \$70,000
Prin. Invest.: D J BIEZAD
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 101 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1805
 CAL POLY THRUST VECTOR GRADUATE RESEARCH AWARD
 05/18/1995 - 05/16/1999 FY99: \$0 Total: \$243,968
Prin. Invest.: T W CARPENTER
Tech. Officer: DFRC/R RAY, DFRC/A H BOWERS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 102 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1806
 CAL POLY THRUST VECTOR UNDERGRADUATE RESEARCH
 05/19/1995 - 05/16/1999 FY99: \$0 Total: \$264,478
Prin. Invest.: T W CARPENTER
Tech. Officer: DFRC/R RAY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 142 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1807
 K-12 TEACHER EDUCATION WITH NASA AERONAUTICS THEME K-12
 TEACHER EDUCATION WITH NASA
 12/11/1997 - 09/30/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: D BIEZAD
Tech. Officer: DFRC/L DUKE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 8674 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1808
 ADAPTIVE SAMPLING OF PHYTOPLANKTON RESPONSES TO EPISODIC
 PHYSICAL FORCING IN THE NEARSHORE COASTAL
 07/08/1999 - 07/14/2000 FY99: \$116,918 Total: \$116,918
Prin. Invest.: M A MOLINE
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 983 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1809
 A DESIGN-INTERACTIVE HANDLING QUALITIES EVALUATION TOOL WITH
 APPLICATIONS TO ROTORCRAFT FLIGHT CONTROLS
 03/27/1997 - 12/14/1999 FY99: \$71,186 Total: \$202,155
Prin. Invest.: D BIEZAD
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5279 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1810
 INTELLIGENT TOOLS FOR MEASURING & IMPROVING OVERSEAS GRID
 QUALITY
 07/17/1998 - 12/31/1999 FY99: \$36,823 Total: \$61,650
Prin. Invest.: R M CUMMINGS
Tech. Officer: ARC/Y M RIZK
CASE Category: 41 - AERONAUTICAL ENGR

NGT 10012 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1811
 MULTIDISCIPLINARY DESIGN AND ANALYSIS FELLOWSHIP PROGRAM
 10/04/1993 - 09/30/1998 FY99: -\$41 Total: \$664,862
Prin. Invest.: R M CUMMINGS, H J FREEMAN
Tech. Officer: HQ/G S SEIDEL, HQ/J R FACEY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 171 CALIFORNIA ST. POLYTECHNIC U-POMONA 1812
 ENHANCEMENT OF RESEARCH & DESIGN CAPABILITIES
 09/30/1999 - 09/30/2001 FY99: \$95,140 Total: \$95,140
Prin. Invest.: W E MORTENSEN
Tech. Officer: DFRC/K GUPTA, DFRC/L VOEKLER
CASE Category: 41 - AERONAUTICAL ENGR

CALIFORNIA
NASA'S UNIVERSITY PROGRAM

NCC 7 10 CALIFORNIA ST. POLYTECHNIC U-POMONA 1813
 ESTABLISHMENT OF A NEW BUSINESS INCUBATOR
 08/06/1998 - 08/06/2001 FY99: \$800,000 Total: \$800,000
 Prin. Invest.: V H GARNER, E L BARNES
 Tech. Officer: NMO/T J LLOYD
 CASE Category: 49 - ENGINEERING, OTHER

NAS 3 26127 CALIFORNIA STATE UNIVERSITY - CHICO 1814
 SERVICES TO OPERATE NASA LEWIS RESEARCH CENTER LEARNING CENTER
 11/01/1990 - 10/31/1999 FY99: \$23,500 Total: \$2,171,744
 Prin. Invest.: J WRIGHT, S GAUL
 Tech. Officer: GRC/D CONRAD, GRC/C DEMONGEOT
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 4 153 CALIFORNIA STATE UNIVERSITY - FRESNO 1815
 THERMO-MECHANICAL CHARACTERISTICS OF COMPOSITE MATERIALS
 03/26/1998 - 03/30/2001 FY99: \$100,000 Total: \$200,000
 Prin. Invest.: S MAHANTY, NONE
 Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 172 CALIFORNIA STATE UNIVERSITY - FRESNO 1816
 PARTNERSHIP PROJECT EXPLORE
 09/30/1999 - 09/30/2001 FY99: \$84,914 Total: \$84,914
 Prin. Invest.: S MAHANTY, T MCCLANAHAN
 Tech. Officer: DFRC/K GUPTA, DFRC/L VOEKLER
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5175 CALIFORNIA STATE UNIVERSITY - FRESNO 1817
 PILOT STUDIES OF NITROGEN TRACE GAS FLUX FROM MANAGED SOLIS OF THE SAN JOAQUIN VALLEY
 03/28/1996 - 12/31/1997 FY99: -\$2,055 Total: \$2,688
 Prin. Invest.: D F ZOLDOSKE Prin. Invest.: NONE
 Tech. Officer: ARC/D L PETERSON
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 70412 CALIFORNIA STATE UNIVERSITY - FRESNO 1818
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/31/1995 - 07/31/1998 FY99: -\$20,414 Total: \$1,586
 Prin. Invest.: A AUERNHEIMER
 Tech. Officer: HQ/D K RUSSELL
 CASE Category: 22 - COMPUTER SCIENCE

NAG 5 3787 CALIFORNIA STATE UNIVERSITY - FULLERTON 1819
 ELECTRON IMPACT EXCITATION OF MOLECULAR HYDROGEN
 03/14/1997 - 10/31/1998 FY99: \$0 Total: \$28,000
 Prin. Invest.: D KHAKOO
 Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 4113 CALIFORNIA STATE UNIVERSITY - FULLERTON 1820
 PRODUCTION OF CD-ROM SET: OPTICAL CCD IMAGES IN SU ASTRO-2/UIT SPACE SHUTTLE MISSION
 04/16/1997 - 04/14/1998 FY99: -\$1 Total: \$18,999
 Prin. Invest.: P CHENG
 Tech. Officer: GSFC/T P STECHER
 CASE Category: 11 - ASTRONOMY

NAG 5 4945 CALIFORNIA STATE UNIVERSITY - FULLERTON 1821
 METEORITE COMPACTION AGES: ANCIENT ENERGETIC PARTICULATE DISSIPATION IN THE EARLY SOLAR NEBULA
 06/23/1997 - 12/31/1999 FY99: \$50,001 Total: \$150,003
 Prin. Invest.: D WOOLUM
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 9 1009 CALIFORNIA STATE UNIVERSITY - FULLERTON 1822
 GENESIS: DETECTORS CHARACTERIZATION/SELECTION AND EDUCATIONAL OUTREACH
 05/05/1998 - 12/31/1999 FY99: \$51,244 Total: \$101,244
 Prin. Invest.: D S WOOLUM
 Tech. Officer: JSC/E K STANSBERRY
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1830 CALIFORNIA STATE UNIVERSITY - LONG BEACH 1823
 MAGNETHOLOGICAL FLUIDS: RHEOLOGY AND NONEQUILIBRIUM PATTERNS FORMATION
 04/18/1996 - 04/17/2000 FY99: \$185,000 Total: \$611,000
 Prin. Invest.: J LIU
 Tech. Officer: GRC/K HSIEH
 CASE Category: 13 - PHYSICS

NCC 5 329 CALIFORNIA STATE UNIVERSITY - LONG BEACH 1824
 AUGMENTED LEARNING ENVIRONMENT FOR RENEWABLE TEACHING (ALERT)
 05/07/1998 - 08/14/2000 FY99: \$150,000 Total: \$300,000
 Prin. Invest.: E AMBOS
 Tech. Officer: GSFC/N KHAZENIE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1867 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1825
 SOLAR EAGLE II PROJECT
 09/26/1996 - 09/30/1998 FY99: \$0 Total: \$22,000
 Prin. Invest.: D B LANDIS
 Tech. Officer: LARC/R A HATHAWAY
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2029 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1826
 ACTIVE ISOLATION TECHNIQUES FOR MITIGATING EARTHQUAKE EFFECTS
 03/17/1998 - 03/16/2001 FY99: \$100,000 Total: \$200,000
 Prin. Invest.: H HASEMIAN
 Tech. Officer: LARC/H M ADELMAN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 4 127 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1827
 THE SCIENCE AMBASSADOR DISTANCE LEARNING PROJECT NEW AWARD
 05/23/1997 - 05/23/1999 FY99: \$134,191 Total: \$781,930
 Prin. Invest.: T ADENIKA-MORROW
 Tech. Officer: DFRC/E L DUKE, DFRC/E COX
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 130 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1828
 COMPUTER SIMULATION OF PLANNING/NAVIGATION IN TWO AND THREE DIMENSIONAL DYNAMIC ENVIRONMENTS
 05/23/1997 - 11/27/1999 FY99: \$90,000 Total: \$400,000
 Prin. Invest.: C WU
 Tech. Officer: DFRC/K GUPTA
 CASE Category: 22 - COMPUTER SCIENCE

NAG 4 136 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1829
SIMULATION AND CONTROL OF HYPersonic VEHICLE NEW AWARD
06/27/1997 - 03/31/1999 FY99: -\$3,302 Total: \$96,698
Prin. Invest.: M MIRMANI
Tech. Officer: DFRC/K K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 151 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1830
FAR STUDY OF CONTROL STRUCTURE INTERACTION IN LARGE FLEXIBLE SPACE STRUCTURE
03/26/1998 - 03/26/2001 FY99: \$100,000 Total: \$200,000
Prin. Invest.: L - HSIA
Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 173 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1831
PARTNERSHIP AN INQUIRY AERONAUTICAL SCIENCE DISTANCE LEARNING PROJECT
09/16/1999 - 09/17/2001 FY99: \$99,999 Total: \$99,999
Prin. Invest.: T ADENIKA-MORROW
Tech. Officer: DFRC/M MCCARTY, DFRC/J LARSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 4 174 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1832
PARTNERSHIP INTEGRATION OF CONFIGURATION
09/16/1999 - 09/17/2001 FY99: \$84,896 Total: \$84,896
Prin. Invest.: C WU
Tech. Officer: DFRC/K GUPTA, DFRC/L VOELKER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 175 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1833
PARTNERSHIP CONTROL HYPersonic VEHICLES
09/15/1999 - 09/17/2001 FY99: \$84,347 Total: \$84,347
Prin. Invest.: M MIRMANI
Tech. Officer: DFRC/K GUPTA, DFRC/L VOELKER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3475 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1834
MATHEMATICS, SCIENCE AND TECHNOLOGY AWARDS FOR TEACHANCEMENT (MASTAP)/FUTURE ACCREDITED SCIENCE TEACH
12/16/1996 - 10/15/1998 FY99: \$0 Total: \$199,734
Prin. Invest.: T ADENIKA-MORROW
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6195 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1835
PACE/MSET AWARD. PERIOD OF PERFORMANCE JULY 1, 199
08/29/1997 - 06/30/1999 FY99: \$0 Total: \$199,995
Prin. Invest.: W TAYLOR
Tech. Officer: GSFC/D STOUTSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6517 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1836
CSARS: A REGIONAL CENTER FOR INTERDISCIPLINARY ENVIRONMENTAL RESEARCH, EDUCATION, AND OUTREACH
10/24/1997 - 03/31/1999 FY99: -\$1,050 Total: \$249,544
Prin. Invest.: J A GAMON, NONE
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6757 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1837
USE OF DECENTRALIZED CONTROL IN DESIGN OF A LARGE SEGMENTED SPACEREFLECTOR
04/06/1998 - 12/31/1999 FY99: \$750,000 Total: \$2,000,000
Prin. Invest.: H R BOUSSALIS
Tech. Officer: GSFC/J MALONE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7401 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1838
INTEGRATING MODELS WITH NARROW-BAND, MULTI-SCALE, REMOTELY SENSED DATA FOR IMPROVED ASSESSMENT OF P
05/20/1998 - 06/30/2000 FY99: \$75,826 Total: \$201,610
Prin. Invest.: J A GAMON
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 90016 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1839
UNDERGRADUATE SCHOLAR AWARDS FOR RESEARCH (USAR)
12/30/1996 - 08/31/1998 FY99: -\$9 Total: \$57,762
Prin. Invest.: M RANDLE
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 46 - MECHANICAL ENGR

NGT 5 90063 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1840
TRAINING GRANT-A MODEL PROGRAM TO IMPROVE THE TRANSCENDED MINORITY ENGINEERING STUDENTS
03/17/1997 - 08/14/1998 FY99: \$0 Total: \$244,000
Prin. Invest.: R B LANDIS
Tech. Officer: GSFC/M MATEU
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6295 CALIFORNIA STATE UNIVERSITY - MONTEREY BAY 1841
CALIFORNIA STATE UNIVERSITY - EARTH SYSTEM SCIENCE
09/17/1997 - 02/28/1999 FY99: \$0 Total: \$20,000
Prin. Invest.: J F PARIS
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6529 CALIFORNIA STATE UNIVERSITY - MONTEREY BAY 1842
DEVELOPMENT OF A REGIONAL-SCALE ECOSYSTEM PROCESS MODEL FOR EVALUATING THE IMPACTS OF DEVELOPMENT A
12/08/1997 - 10/31/2000 FY99: \$0 Total: \$700,000
Prin. Invest.: L PIERCE
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG13 99020 CALIFORNIA STATE UNIVERSITY - MONTEREY BAY 1843
APPLICATION OF REMOTE SENSING AND ECOSYSTEM MODELING TO VINEYARD MANAGEMENT IN CA NAPA VALLEY
08/13/1999 - 08/12/2000 FY99: \$87,525 Total: \$87,525
Prin. Invest.: L F JOHNSON
Tech. Officer: JSC/R MCKELLIP
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS13 98071 CALIFORNIA STATE UNIVERSITY - MONTEREY BAY 1844
HYPERSPECTRAL DETECTION OF NITROGEN STRESS IN VEGETABLE CROPS SALINAS VALLEY MONTEREY COUNTY
09/30/1998 - 09/29/2000 FY99: \$0 Total: \$125,000
Prin. Invest.: L F JOHNSON
Tech. Officer: SSC/H CARR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 975 CALIFORNIA STATE UNIVERSITY - MONTEREY BAY 1845
 COOPERATIVE RESEARCH IN EARTH SYSTEM SCIENCE, TECHNOLOGY & APPLICATIONS
 12/19/1996 - 11/30/1999 FY99: \$665,309 Total: \$1,400,960
Prin. Invest.: S E ALEXANDER, L F JOHNSON, J C COUGHLAN
Tech. Officer: ARC/J C COUGHLAN, ARC/J A BRASS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 4 162 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1846
 NASA EXPLORERS
 02/24/1999 - 02/23/2000 FY99: \$82,753 Total: \$82,753
Prin. Invest.: W FURUMOTO, M LIPSCHUTZ, G MASSEY
Tech. Officer: DFRC/M MCCARTHY, DFRC/J LARSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4973 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1847
 PRECISE GROUND-BASED PHOTOMETRIC OBSERVATIONS AND SOLAR TOTAL AND SPECTRAL IRRADIANCE OBSERVATIONS B
 06/23/1997 - 10/31/1999 FY99: \$75,380 Total: \$150,003
Prin. Invest.: G A CHAPMAN
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7059 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1848
 A PUBLIC ARCHIVE OF PHOTOMETRIC FULL-DISK SOLAR IMAGES
 03/12/1998 - 04/14/1999 FY99: \$0 Total: \$11,000
Prin. Invest.: S R WALTON
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7191 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1849
 ACQUISITION AND ANALYSIS OF PRECISE GROUND-BASED PHOTOMETRIC FULL-DISK IMAGES FOR THE UNDERSTANDING
 03/25/1998 - 07/31/2000 FY99: \$50,235 Total: \$66,980
Prin. Invest.: G CHAPMAN
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7778 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1850
 A PROPOSAL TO CHARACTERIZE AND UNDERSTAND THE SOURCES OF SOLAR TOTAL AND SPECTRAL IRRADIANCE VARIATIONS
 10/28/1998 - 01/31/2002 FY99: \$36,687 Total: \$36,687
Prin. Invest.: D A CHAPMAN
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 7878 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1851
 A PROPOSAL TO COMPARE GROUND-BASED PHOTOMETRIC IMAGES WITH IRRADIANCE DATA FROM SOHO
 12/01/1998 - 12/14/1999 FY99: \$12,000 Total: \$12,000
Prin. Invest.: G A CHAPMAN
Tech. Officer: GSFC/J GURMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8004 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1852
 CORONAL COUNTERPARTS OF CHROMOSPHERIC QUIET SUN DYNAMICAL EVENTS
 01/19/1999 - 01/14/2000 FY99: \$52,700 Total: \$52,700
Prin. Invest.: M J PENN
Tech. Officer: GSFC/J GURMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 4 97052 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1853
 EDUCATION SERVICES
 09/18/1997 - 09/30/1999 FY99: -\$12,483 Total: \$362,204
Prin. Invest.: C CORDOVA
Tech. Officer: DFRC/C C CORDOVA
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1021 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1854
 EXAMINING THE EFFECTS OF HIGH-LEVEL INTERRUPTIONS ON PART 121 AIRCREW PERFORMANCE
 02/25/1998 - 01/31/2000 FY99: \$0 Total: \$78,707
Prin. Invest.: B TABACHIVIDE, D DAMIS
Tech. Officer: ARC/R K DISMUKES
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 381 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1855
 SPECTRO-POLARIMETRY OF PLANETARY OBJECTS
 02/19/1999 - 02/29/2000 FY99: \$13,790 Total: \$13,790
Prin. Invest.: M J PENN
Tech. Officer: GSFC/J E ALLEN
CASE Category: 11 - ASTRONOMY

NAG 8 1220 CALIFORNIA STATE UNIVERSITY - SACRAMENTO 1856
 JOVE
 11/30/1995 - 05/31/2000 FY99: \$0 Total: \$89,600
Prin. Invest.: B HAUSBACK, Z NDLELA
Tech. Officer: MSFC/D SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 4 140 CALIFORNIA STATE UNIVERSITY-BAKERSFIELD 1857
 EVALUATION ASSISTANCE FOR DFRC AND ENGINEERING EVALUATION ASSISTANCE FOR DFRC
 11/18/1997 - 11/18/1999 FY99: \$55,347 Total: \$107,911
Prin. Invest.: K L NYBERG
Tech. Officer: DFRC/K SHY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 161 CALIFORNIA STATE UNIVERSITY, DOMINQUEZ HILLS 1858
 STEP PACE SCIENCE TECH PROJECT
 02/17/1999 - 02/16/2000 FY99: \$99,983 Total: \$99,983
Prin. Invest.: E KRINSKY
Tech. Officer: DFRC/M MCCARTHY, DFRC/J LARSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 99010 CALIFORNIA STATE UNIVERSITY, DOMINQUEZ HILLS 1859
 SOUTHERN CALIFORNIA CENTER FOR MANAGING FIRE HAZARDS AT THE URBAN WILDLANDS INTERFACE
 03/03/1999 - 03/02/2002 FY99: \$1,087,523 Total: \$1,087,523
Prin. Invest.: C LEE
Tech. Officer: JSC/C HILL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2001 CALIFORNIA WESTERN SCHOOL OF LAW 1860
 AERONAUTS 2000: CURRICULUM DEVELOPMENT PROJECT
 01/07/1997 - 08/30/1999 FY99: \$0 Total: \$30,085
Prin. Invest.: A L JOHNSON
Tech. Officer: GRC/B E LEWANDOWSKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3519 CLAREMONT MCKENNA COLLEGE 1861
 PEAK DISTRIBUTION OF CLASSICAL GAMMA-RAY BURSTS
 03/03/1997 - 02/14/1998 FY99: -\$12,253 Total: \$17,697
Prin. Invest.: V WANG
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8017 CLAREMONT MCKENNA COLLEGE 1862
 THE COSMIC RAY PATH LENGTH DISTRIBUTION EXPECTED FROM THE
 LOCAL SPACE AND TIME DEPENDENT SUPERNOV
 01/06/1999 - 12/31/1999 FY99: \$36,564 Total: \$36,564
Prin. Invest.: D C HIGDON
Tech. Officer: GSFC/D C LING
CASE Category: 11 - ASTRONOMY

NAG 5 4883 COLLEGE OF SAN MATEO 1863
 DEVELOP REMOTE SENSING EDUCATIONAL MATERIALS TO BE ITY COL-
 LEGES ACROSS THE US.
 08/01/1997 - 12/31/1999 FY99: \$60,000 Total: \$224,000
Prin. Invest.: K D KENNEDY
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4942 COLLEGE OF SAN MATEO 1864
 ACTES: AN ASSOCIATE OF ARTS IN COMMUNITY COLLEGES FOR TRAIN-
 ING IN EARTH SCIENCE
 02/24/1996 - 01/31/1999 FY99: -\$87 Total: \$73,913
Prin. Invest.: K D KENNEDY
Tech. Officer: HQ/M A PINE, HQ/D R NORTON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 90040 D-Q UNIVERSITY 1865
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 01/30/1997 - 08/14/1998 FY99: -\$12,000 Total: \$48,000
Prin. Invest.: S TIWARI
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NGT 2 1001 FOOTHILL-DE ANZA COM COLLEGE SYSTEM OFF 1866
 SCIENTIFIC-TECHNICAL & BUSINESS CAREERS TRAINING G RANT
 07/07/1993 - 06/30/2000 FY99: \$1,194,029 Total: \$7,327,290
Prin. Invest.: M CONWAY
Tech. Officer: ARC/M E LOPEZ, ARC/J M MCCULLOUGH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3406 HARVEY MUDD COLLEGE 1867
 ABUNDANCE DETERMINATIONS IN THE FAR OUTER GALAXY: INFRARED
 OBSERVATIONS OF HII REGIONS
 09/06/1996 - 08/14/1999 FY99: \$0 Total: \$18,100
Prin. Invest.: A RUDOLPH
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NCC 2 5293 HARVEY MUDD COLLEGE 1868
 SOFIA - ADVANCED DIAGNOSTIC SYSTEM
 09/15/1998 - 06/30/1999 FY99: \$0 Total: \$36,000
Prin. Invest.: C L DYM
Tech. Officer: ARC/D L IVERSON
CASE Category: 45 - ELECTRICAL ENGR

NCC 5 236 LOMA LINDA UNIVERSITY 1869
 COOPERATIVE RESEARCH IN PROTON SPACE RADIATION
 09/10/1997 - 09/30/1998 FY99: \$0 Total: \$3,000,000
Prin. Invest.: D NELSON
Tech. Officer: GSFC/W SCHIMMERLING
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 9 79 LOMA LINDA UNIVERSITY 1870
 PROTON SPACE RESEARCH
 01/13/1999 - 09/30/2000 FY99: \$12,000,000 Total: \$12,000,000
Prin. Invest.: G A NELSON
Tech. Officer: JSC/F A CUCINOTTA
CASE Category: 13 - PHYSICS

NAG 4 116 LOYOLA MARYMOUNT UNIVERSITY 1871
 EAGLES IN SPACE PROGRAM EAGLES IN SPACE PROGRAM
 02/06/1997 - 11/30/1998 FY99: \$0 Total: \$15,642
Prin. Invest.: I BOND
Tech. Officer: DFRC/L DUKE, II
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7050 LOYOLA MARYMOUNT UNIVERSITY 1872
 TRACKING TRANSIENT EVENTS FROM THE SOLAR WIND TO THE MAGNE-
 TOSPHERE
 03/23/1998 - 03/31/2001 FY99: \$21,220 Total: \$42,940
Prin. Invest.: J SANNY
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 2 6013 NATIONAL HISPANIC UNIVERSITY 1873
 MINORITY EDUCATORS NEURO-LAB TRAINING FOR EXCELLENCE IN SCI-
 ENCE (MENTES)
 07/25/1997 - 05/31/1999 FY99: \$65,200 Total: \$197,346
Prin. Invest.: M C VIRAMONTES
Tech. Officer: ARC/B LUNA, ARC/G S LEE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4182 NATIONAL HISPANIC UNIVERSITY 1874
 PACE/MSET CIENTIFICOS 2 PROJECT
 03/27/1997 - 10/31/1998 FY99: \$0 Total: \$199,739
Prin. Invest.: M E RIDDLE
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6379 PASADENA CITY COLLEGE 1875
 PACE/MSET AWARD
 11/07/1997 - 07/31/1999 FY99: \$0 Total: \$197,806
Prin. Invest.: J CONNOR
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 6031 PERALTA COMMUNITY COLLEGE SYSTEM OFFICE 1876
 LEARNING INNOVATIVE MATHEMATICS & SCIENCE WITH TECHNOLOGY
 03/05/1999 - 02/29/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: R J PARKER
Tech. Officer: ARC/B J COLLINS, ARC/G S LEE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2050 **SAN DIEGO STATE UNIVERSITY** **1877**
 HIGH SPEED DIGITAL SIGNAL PROCESSING BASED DIGITAL RECEIVERS &
 TRANSMITTERS
 05/15/1997 - 10/31/1998 FY99: -\$64,887 Total: \$15,113
Prin. Invest.: F HARRIS
Tech. Officer: GRC/M ANDRO
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 6060 **SAN DIEGO STATE UNIVERSITY** **1878**
 MECHANISM OF AUXIN ACTION IN ROOT GROWTH/GRAVITRO
 07/29/1997 - 04/30/1999 FY99: \$0 Total: \$122,842
Prin. Invest.: D RAYLE
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 8560 **SAN DIEGO STATE UNIVERSITY** **1879**
 ENVIRONMENTAL CHANGE AND NATURAL HAZARD ASSESSMENT IN WEST-
 ERN TURKMENIS-TAN USING INTERFEROMETRIC SY
 07/14/1999 - 06/30/2000 FY99: \$46,776 Total: \$46,776
Prin. Invest.: R MELLORS
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG13 99017 **SAN DIEGO STATE UNIVERSITY** **1880**
 REGIONAL CHANGE MONITORING OF HABITAT RESERVE SYSTEMS WITH
 VERY HIGH RESOLUTION REMOTELY SENSED
 07/19/1999 - 07/18/2000 FY99: \$87,525 Total: \$87,525
Prin. Invest.: D STOW
Tech. Officer: JSC/R MCKELLIP
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 97126 **SAN DIEGO STATE UNIVERSITY** **1881**
 SIMBIOS NORMALIZED WATER-LEAVING RADIANCE CAL/VAL
 08/18/1997 - 08/18/2000 FY99: \$432,320 Total: \$744,480
Prin. Invest.: J L MUELLER
Tech. Officer: GSFC/C R MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NCC13 16 **SAN DIEGO STATE UNIVERSITY** **1882**
 VISITING INVESTIGATOR PROGRAM VISITING INVESTIGATOR PROGRAM
 09/25/1996 - 12/31/1999 FY99: \$181,250 Total: \$474,974
Prin. Invest.: D HERGERT
Tech. Officer: SSC/H CARR
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 30311 **SAN DIEGO STATE UNIVERSITY** **1883**
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/10/1995 - 08/31/1998 FY99: \$0 Total: \$44,000
Prin. Invest.: W OECHEL
Tech. Officer: HQ/D E WICKLAND, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30319 **SAN DIEGO STATE UNIVERSITY** **1884**
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/07/1995 - 08/31/1998 FY99: \$0 Total: \$44,000
Prin. Invest.: W C OECHEL
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30077 **SAN DIEGO STATE UNIVERSITY** **1885**
 THIRD YEAR FUNDING: "EFFECTS OF ELEVATED CO2 AND FOREST PRO-
 DUCTIVITY AND NUTRIENT DYNAMICS IN TUSCA
 09/10/1997 - 12/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: D ALLEN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30118 **SAN DIEGO STATE UNIVERSITY** **1886**
 USING REMOTE SENSING & NATURAL CO2 SPRINGS TO UNDE OF ELE-
 VATED CO2 ON ECOSYSTEMS STRUCTURE AND FUNCT
 09/26/1997 - 08/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: W C OECHEL
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1285 **SAN FRANCISCO STATE UNIVERSITY** **1887**
 FREE FLIGHT INFORMATION & AUTOMATION ISSUES
 02/08/1999 - 09/14/1999 FY99: \$71,000 Total: \$71,000
Prin. Invest.: K L MOSIER, E A LYALL
Tech. Officer: ARC/J M ORASANU
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 5 4128 **SAN FRANCISCO STATE UNIVERSITY** **1888**
 DETERMINATION OF OPTICAL CONSTANTS OF VOLATILE & F MINERALS
 FOR THERMAL INFRARED SPRECTRA OF THE MAR
 03/14/1997 - 06/30/1999 FY99: \$0 Total: \$72,400
Prin. Invest.: T L ROUSH
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7459 **SAN FRANCISCO STATE UNIVERSITY** **1889**
 DETECTING EXTRA-SOLAR PLANETS: CROSSING THE JUPIT ER THRESH-
 OLD
 09/24/1998 - 06/30/2000 FY99: \$0 Total: \$34,858
Prin. Invest.: D W MARCY
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7511 **SAN FRANCISCO STATE UNIVERSITY** **1890**
 THE SEASONAL AND INTERANNUAL VARIABILITY OF PHYTOP LANKTON IN
 THE BERING SEA AS INFLUENCED BY SEA IC
 07/24/1998 - 07/31/2001 FY99: \$50,565 Total: \$148,613
Prin. Invest.: D H ROBINSON
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7632 **SAN FRANCISCO STATE UNIVERSITY** **1891**
 MONITORING ECOSYSTEM CONDITION & STRESS IN THE SAN PABLO BAY,
 CA REGION
 08/21/1998 - 09/30/2001 FY99: \$0 Total: \$99,885
Prin. Invest.: R KUDELA
Tech. Officer: HQ/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8013 **SAN FRANCISCO STATE UNIVERSITY** **1892**
 A COUPLED ICE-OCEAN MODEL OF MESOSCALE PHYSICAL/BIO LOGICAL
 INTERACTIONS IN THE SOUTHERN OCEAN
 01/20/1999 - 01/31/2000 FY99: \$48,630 Total: \$48,630
Prin. Invest.: D H ROBINSON
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTALSCI, OTHER

NAG 5 8299 **SAN FRANCISCO STATE UNIVERSITY** **1893**
 DETECTING EXTRASOLAR PLANETS
 02/23/1999 - 02/29/2000 FY99: \$126,100 Total: \$126,100
Prin. Invest.: D W MARCY
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAS 9 19410 **SAN FRANCISCO STATE UNIVERSITY** **1894**
 ANALYSIS OF VOLATILE ORGANIC COMPOUNDS ON MIR STATION
 10/27/1995 - 09/30/1999 FY99: \$30,516 Total: \$396,735
Prin. Invest.: D PALMER
Tech. Officer: JSC/A PLAZA
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 808 **SAN FRANCISCO STATE UNIVERSITY** **1895**
 THE BIOGENIC ELEMENTS IN MARS SOIL
 07/01/1993 - 03/31/1999 FY99: \$15,045 Total: \$273,572
Prin. Invest.: J B ORENBURG
Tech. Officer: ARC/G C CARLE
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 901 **SAN FRANCISCO STATE UNIVERSITY** **1896**
 CONSTRUCTION OF A LONG-TERM CLIMATOLOGY OF ANTARCTIC POLAR STRATOSPHERIC CLOUDS BY AN AUTOMATED....
 03/27/1995 - 01/15/1999 FY99: \$0 Total: \$408,188
Prin. Invest.: K L PAGAN, O GARCIA, P G FOSCHI
Tech. Officer: ARC/R S HIPSKIND, ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 997 **SAN FRANCISCO STATE UNIVERSITY** **1897**
 ROBOTIC INTELLIGENT PLANETARY EXPLORERS (RIPE)
 06/11/1997 - 04/30/1999 FY99: \$0 Total: \$97,533
Prin. Invest.: G K BENEDIX, J J DERST, E FERON
Tech. Officer: ARC/J N CUZZI
CASE Category: 11 - ASTRONOMY

NCC 2 1128 **SAN FRANCISCO STATE UNIVERSITY** **1898**
 CONSTRUCTION OF A LONG-TERM CLIMATOLOGY OF ANTARCTIC & ARTIC POLAR STRATOSPHERIC CLOUDS BY AN AUTOM
 07/01/1999 - 06/14/2000 FY99: \$54,000 Total: \$54,000
Prin. Invest.: K L PAGAN
Tech. Officer: ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5180 **SAN FRANCISCO STATE UNIVERSITY** **1899**
 FUTURE OFFICE INFRASTRUCTURE
 06/17/1996 - 03/31/1998 FY99: \$0 Total: \$79,973
Prin. Invest.: P SHAHNASSER
Tech. Officer: ARC/P R GRAMS
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5301 **SAN FRANCISCO STATE UNIVERSITY** **1900**
 AERONAUTICAL TELECOMMUNICATION NETWORK MODELING & SIMULATION
 12/04/1998 - 11/30/1999 FY99: \$59,973 Total: \$59,973
Prin. Invest.: H SHAHNASSER
Tech. Officer: ARC/P R GRAMS, ARC/J WANG
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5318 **SAN FRANCISCO STATE UNIVERSITY** **1901**
 EXERCISE ON A SHORT-ARM CENTRIFUGE
 04/23/1999 - 04/30/2000 FY99: \$61,867 Total: \$61,867
Prin. Invest.: P R BARNES
Tech. Officer: ARC/J E GREENLEAF
CASE Category: 56 - MEDICAL

NCC 2 5324 **SAN FRANCISCO STATE UNIVERSITY** **1902**
 THE CHEMISTRY, MINERALOGY & SPECTROSCOPY OF THE BIOGENIC ELEMENTS IN MARS SOIL ANALOGS
 05/17/1999 - 11/30/1999 FY99: \$26,120 Total: \$26,120
Prin. Invest.: J B ORENBURG
Tech. Officer: ARC/T L ROUSH
CASE Category: 12 - CHEMISTRY

NAG 1 1804 **SAN JOSE STATE UNIVERSITY** **1903**
 THEORETICAL STUDIES OF PROCESSES AFFECTING THE STRATOSPHERIC AND FREE TROPOSPHERIC AEROSOL
 02/13/1996 - 05/31/1999 FY99: \$0 Total: \$88,852
Prin. Invest.: P HAMILL
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2205 **SAN JOSE STATE UNIVERSITY** **1904**
 CHARACTERIZING STRATOSPHERIC & TROPOSPHERIC AEROSOL: THEORETICAL STUDIES & ANAL OF SATELLITE DATA (NRA)
 06/15/1999 - 05/31/2002 FY99: \$24,103 Total: \$24,103
Prin. Invest.: P HAMILL
Prin. Invest.: NONE
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 848 **SAN JOSE STATE UNIVERSITY** **1905**
 DEVELOPMENT OF PROCESSING TECHNIQUES FOR ADVANCED THERMAL PROTECTION MATERIALS
 06/17/1993 - 05/31/1999 FY99: \$0 Total: \$391,171
Prin. Invest.: G SELVADURAY
Tech. Officer: ARC/D B LEISER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 2 1163 **SAN JOSE STATE UNIVERSITY** **1906**
 THERMAL PROPERTY PARAMETER ESTIMATION OF TPS MATERIALS
 09/25/1997 - 06/30/1999 FY99: \$15,000 Total: \$48,009
Prin. Invest.: J MADDREN
Tech. Officer: ARC/D J RASKY, ARC/D LEISER
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1223 **SAN JOSE STATE UNIVERSITY** **1907**
 MODIFYING THE HUMAN MACHINE INTERFACE BASED ON QUALITATIVE MEASUREMENT OF THE LEVEL OF AWARENESS
 06/18/1998 - 08/31/1999 FY99: \$50,992 Total: \$100,992
Prin. Invest.: L FEUNG, R B KNAPP
Tech. Officer: ARC/V M BATTISTE, ARC/W W JOHNSON
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 5 4372 **SAN JOSE STATE UNIVERSITY** **1908**
 RADIO OCCULTATION INVESTIGATION OF THE RINGS OF SATURN
 04/25/1997 - 02/28/2000 FY99: \$32,000 Total: \$112,000
Prin. Invest.: D A MAROUF
Tech. Officer: GSFC/J GRANT
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 8 97106 **SAN JOSE STATE UNIVERSITY** **1909**
 R/S IMPACTS OF URBAN GROWTH ON REGIONAL CLIMATE AND AIR QUAL-
 ITY
 11/19/1996 - 11/18/1999 FY99: \$0 Total: \$89,627
Prin. Invest.: R BORSTEIN
Tech. Officer: MSFC/T MILLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 168 **SAN JOSE STATE UNIVERSITY** **1910**
 EXPERIMENTAL STUDIES OF THE DISTRIBUTION OF MINOR CONSTITU-
 ENTS IN THE ATMOSPHERE
 01/01/1982 - 03/31/1999 FY99: \$0 Total: \$2,689,567
Prin. Invest.: J GOODMAN
Tech. Officer: ARC/R L CHAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 211 **SAN JOSE STATE UNIVERSITY** **1911**
 TROPOSPHERIC - STRATOSPHERIC MEASUREMENT STUDIES
 09/22/1987 - 10/31/1998 FY99: \$0 Total: \$1,352,658
Prin. Invest.: J GOODMAN, S W BOWEN
Tech. Officer: ARC/T V BUI, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 327 **SAN JOSE STATE UNIVERSITY** **1912**
 AERO-SPACE HUMAN FACTORS
 10/01/1984 - 01/31/1999 FY99: \$578,033 Total: \$13,691,076
Prin. Invest.: K JORDAN, K JORDAN
Tech. Officer: ARC/R K DISMUKES
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 471 **SAN JOSE STATE UNIVERSITY** **1913**
 STUDIES OF THE ATMOSPHERE OF VENUS AND WORK ON THEATMO-
 SPHERIC STRUCTURE EXPERIMENT OF THE GALILEO JU
 04/01/1987 - 11/30/1998 FY99: \$0 Total: \$1,097,334
Prin. Invest.: P LESTER, A SEIFF
Tech. Officer: ARC/L E LASHER, ARC/R E YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 687 **SAN JOSE STATE UNIVERSITY** **1914**
 "OBSERVATIONAL STUDY OF SOLAR SYSTEM PLASMAS"
 07/31/1990 - 01/14/1999 FY99: \$0 Total: \$890,284
Prin. Invest.: P HAMILL, P R GAZIS
Tech. Officer: ARC/A BARNES
CASE Category: 11 - ASTRONOMY

NCC 2 723 **SAN JOSE STATE UNIVERSITY** **1915**
 BEHAVIORAL AND PHYSIOLOGICAL EFFECTS OF HINDLIMB UNLOADING IN
 RATS
 07/26/1991 - 12/31/1998 FY99: \$0 Total: \$936,657
Prin. Invest.: R A FOX, F D'AMELIO, L F ENG
Tech. Officer: ARC/M L CORCORAN, ARC/N G DAUNTON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 756 **SAN JOSE STATE UNIVERSITY** **1916**
 SIMULATION OF TROPICAL BIOMASS BURING PLUMES
 05/04/1992 - 02/14/1999 FY99: \$0 Total: \$478,389
Prin. Invest.: P HAMILL, J A VASTANO
Tech. Officer: ARC/R B CHATFIELD, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 779 **SAN JOSE STATE UNIVERSITY** **1917**
 SCIENTIFIC EVALUATION OF HARDWARE & SUPPORTING STU DIES FOR
 HARDWARE DEVELOPMENT
 02/09/1993 - 12/31/1999 FY99: \$2,149 Total: \$530,874
Prin. Invest.: D C HOLLEY
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 798 **SAN JOSE STATE UNIVERSITY** **1918**
 FLIGHT HUMAN FACTORS
 05/12/1993 - 05/31/2000 FY99: \$2,125,076 Total: \$9,930,869
Prin. Invest.: K P JORDAN, D
Tech. Officer: ARC/R K DISMUKES
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 955 **SAN JOSE STATE UNIVERSITY** **1919**
 ATMOSPHERIC DYNAMICS ON VENUS JUPITER AND SATURN - AN
 OBSERVATIONAL & ANALYTICAL STUDY
 06/24/1996 - 10/31/1999 FY99: \$102,866 Total: \$330,939
Prin. Invest.: A C BRIDGER
Tech. Officer: ARC/R E YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 960 **SAN JOSE STATE UNIVERSITY** **1920**
 STELLAR PROJECT
 07/22/1996 - 12/31/1999 FY99: \$269,156 Total: \$964,651
Prin. Invest.: A RODRIGUEA
Tech. Officer: ARC/K C SABLAN, ARC/B A CORBIN
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 984 **SAN JOSE STATE UNIVERSITY** **1921**
 DYNAMIS OF RINGS & SMALL BODIES
 04/01/1997 - 02/29/2000 FY99: \$35,096 Total: \$213,335
Prin. Invest.: P J HAMILL
Tech. Officer: ARC/K ZAHAE
CASE Category: 11 - ASTRONOMY

NCC 2 1015 **SAN JOSE STATE UNIVERSITY** **1922**
 INTEGRATING LEGACY APPLICATIONS WITHIN A MIDDLEWAR E ENVIRON-
 MENT
 02/01/1998 - 01/31/2000 FY99: \$50,000 Total: \$144,814
Prin. Invest.: R FATOOHI, D HARKEY, NONE
Tech. Officer: ARC/M E LIVINGSTON, ARC/D KAWAK
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1022 **SAN JOSE STATE UNIVERSITY** **1923**
 COUNTERACTING MUSCLE ATROPHY USING GALVANIC STIMUL ATION OF
 THE VESTIBULAR SYSTEM
 02/26/1998 - 01/31/1999 FY99: \$0 Total: \$59,939
Prin. Invest.: R A FOX, I POLYAKOV
Tech. Officer: ARC/M L CORCORAN, ARC/N G DAUTON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 1043 **SAN JOSE STATE UNIVERSITY** **1924**
 LIMITATIONS OF HUMAN INFORMATION PROCESSING
 06/18/1998 - 12/14/1999 FY99: \$20,000 Total: \$28,700
Prin. Invest.: M VAN SELST
Tech. Officer: ARC/R W REMINGTON, ARC/J C JOHNSTON
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 1045 **SAN JOSE STATE UNIVERSITY** **1925**
 AIRBORNE MEASUREMENT RESEARCH
 06/30/1998 - 06/30/2000 FY99: \$76,145 Total: \$141,145
Prin. Invest.: J GOODMAN
Tech. Officer: ARC/P BUI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 1059 **SAN JOSE STATE UNIVERSITY** **1926**
 RESEARCH ON PLANETARY ATMOSPHERES & STMOSPHERE PRO BES
 07/27/1998 - 02/29/2000 FY99: \$124,601 Total: \$177,791
Prin. Invest.: A SEIFF, J GOODMAN
Tech. Officer: ARC/R E YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 1060 **SAN JOSE STATE UNIVERSITY** **1927**
 SOLAR WIND STUDIES & AI TECHNOLOGIES
 08/11/1998 - 11/30/1999 FY99: \$113,904 Total: \$157,704
Prin. Invest.: P J HAMILL
Tech. Officer: ARC/A BARNES
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 2 1071 **SAN JOSE STATE UNIVERSITY** **1928**
 ASSESSMENT OF DISTRIBUTED OBJECT MIDDLEWARE
 11/16/1998 - 10/31/1999 FY99: \$174,997 Total: \$174,997
Prin. Invest.: R FATOOHI
Tech. Officer: ARC/T A LASINSKI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1091 **SAN JOSE STATE UNIVERSITY** **1929**
 REGIONAL & GLOBAL MODELING OF ATMOSPHERIC TRACE SP ECIES
 03/01/1999 - 12/14/1999 FY99: \$91,236 Total: \$91,236
Prin. Invest.: P A HAMILL
Tech. Officer: ARC/R B CHATFIELD, ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 1095 **SAN JOSE STATE UNIVERSITY** **1930**
 HUMAN FACTORS RESEARCH, TEHCNOLOGY & SAFETY
 03/11/1999 - 10/31/1999 FY99: \$1,484,216 Total: \$1,484,216
Prin. Invest.: K P JORDAN
Tech. Officer: ARC/R K DISMUKES, ARC/C H NULL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 1096 **SAN JOSE STATE UNIVERSITY** **1931**
 EFFECTS OF CHRONIC EXPOSURE TO HYPER GRAVITY ON DI FFERENT STRAINS OF YOUNG & MATURE RATS
 03/11/1999 - 01/31/2000 FY99: \$142,362 Total: \$142,362
Prin. Invest.: R A FOX
Tech. Officer: ARC/N G DAUNTON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 1097 **SAN JOSE STATE UNIVERSITY** **1932**
 FLIGHT MANAGEMENT & AIR TRAFFIC MODELING
 03/19/1999 - 09/30/1999 FY99: \$444,176 Total: \$444,176
Prin. Invest.: K P JORDAN
Tech. Officer: ARC/B D MCNALLY
CASE Category: 41 - AERONAUTICAL ENGNR

NCC 2 1106 **SAN JOSE STATE UNIVERSITY** **1933**
 EXPERIMENTAL STUDIES OF THE DISTRIBUTION OF & INTE RACTION BETWEEN REACTIVE TRACE CHEMICALS WITH DYN
 04/12/1999 - 03/31/2000 FY99: \$217,385 Total: \$217,385
Prin. Invest.: J GOODMAN
Tech. Officer: ARC/P BUI, ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 1132 **SAN JOSE STATE UNIVERSITY** **1934**
 THE INFLUENCE OF THE ATMOSPHERE ON POLARIZED BI-D IRECTIONAL REFLECTANCE DATA OF BOREALWETLANDS
 08/17/1999 - 12/31/1999 FY99: \$11,000 Total: \$11,000
Prin. Invest.: P A HAMILL, U BOTTGER
Tech. Officer: ARC/V VANDERBILT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 1136 **SAN JOSE STATE UNIVERSITY** **1935**
 SUPPORTING STUDIES FOR HARDWARE DEVELOPMENT & SCIE NTIFIC EVALUATION OF HARDWARE
 09/01/1999 - 10/31/2000 FY99: \$29,086 Total: \$29,086
Prin. Invest.: D C HOLLEY
Tech. Officer: ARC/M F VASQUES, ARC/S PATTERSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 5181 **SAN JOSE STATE UNIVERSITY** **1936**
 MARTIAN METEOROLOGY, DETERMINATION OF LARGE SCALE W EATHER PATTERNS FROM SURFACE MEASUREMENTS
 06/27/1996 - 09/30/1998 FY99: -\$685 Total: \$75,714
Prin. Invest.: D C BRIDGER
Tech. Officer: ARC/R M HABERLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5203 **SAN JOSE STATE UNIVERSITY** **1937**
 REDUCTION AND ANALYSIS OF METEOROLOGY DATA FROM THE MARS PATHFINDER LANDER
 02/04/1997 - 09/30/1998 FY99: -\$2,138 Total: \$61,796
Prin. Invest.: A C BRIDGER
Tech. Officer: ARC/R M HABERLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5210 **SAN JOSE STATE UNIVERSITY** **1938**
 LASER SPECTROSCOPIC STUDIES OF POLYCYCLIC AROMATIC HYDRO-CARBONS UNDER INTERSTELLAR CONDITIONS
 04/03/1997 - 05/31/1998 FY99: -\$360 Total: \$39,603
Prin. Invest.: B M STONE
Tech. Officer: ARC/L ALLAMANDOLA
CASE Category: 11 - ASTRONOMY

NCC 2 5230 **SAN JOSE STATE UNIVERSITY** **1939**
 SEASONAL WATER TRANSPORT IN THE ATMOSPHERE OF MARS APPLICA-TIONS OF A MARS GLOBAL SURVEYOR DATA
 08/18/1997 - 11/30/1999 FY99: \$51,503 Total: \$115,804
Prin. Invest.: A F BRIDGER, J L HOLLINGSWORTH
Tech. Officer: ARC/R M HABERLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5234 **SAN JOSE STATE UNIVERSITY** **1940**
 MINIATURE LASER SPECTROMETER FOR STABLE ISOTOPE MEA-SUREMENTS
 08/12/1997 - 08/31/1999 FY99: \$8,000 Total: \$72,515
Prin. Invest.: J F BECKER
Tech. Officer: ARC/D KOIIRO
CASE Category: 12 - CHEMISTRY

NCC 2 5248 **SAN JOSE STATE UNIVERSITY** **1941**
 A SIMULATION TO STUDY SPEED DISTRIBUTION IN A SOLAR PLASMA
 12/04/1997 - 09/30/1999 FY99: \$60,915 Total: \$100,915
Prin. Invest.: P HAMILL
Tech. Officer: ARC/K SWANSON
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5280 **SAN JOSE STATE UNIVERSITY** **1942**
 MARS WIND & SURFACE TEMPERATURE MODELS
 07/17/1998 - 01/31/1999 FY99: \$0 Total: \$26,532
Prin. Invest.: A C BRIDGER
Tech. Officer: ARC/R M HABERLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5283 **SAN JOSE STATE UNIVERSITY** **1943**
 EVALUATING EXTINCTION VALUES USING WIRE IMPACTOR DATA
 07/27/1998 - 09/14/1998 FY99: \$0 Total: \$3,934
Prin. Invest.: P J HAMILL
Tech. Officer: ARC/R F PUESCHEL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5305 **SAN JOSE STATE UNIVERSITY** **1944**
 DETERMINATION OF LIMITING SPECIMAN SIZE FOR ANALYTICAN &
 EXPERIMENTAL ANALYSES OF DUCTILE CRACK ...
 01/13/1999 - 12/31/1999 FY99: \$8,322 Total: \$8,322
Prin. Invest.: M A LAMBERT
Tech. Officer: ARC/T L PANONTIN
CASE Category: 49 - ENGINEERING, OTHER

NCC 2 5311 **SAN JOSE STATE UNIVERSITY** **1945**
 EXTOMYCORRHIZAE ECOLOGY IN YELLOWSTONE PARK
 03/17/1999 - 02/29/2000 FY99: \$39,820 Total: \$39,820
Prin. Invest.: C A BRINEGAR
Tech. Officer: ARC/K W CULLINGS, ARC/M L FONDA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5326 **SAN JOSE STATE UNIVERSITY** **1946**
 ASSIMILATION OF MGS DATA INTO A COUPLED GCM-MESOSCALE MODEL
 OF THE MARTIAN ATMOSPHERE
 06/01/1999 - 11/30/1999 FY99: \$13,100 Total: \$13,100
Prin. Invest.: S S RAFKIN
Tech. Officer: ARC/R M HABERLE
CASE Category: 11 - ASTRONOMY

NCC 2 5330 **SAN JOSE STATE UNIVERSITY** **1947**
 INVESTIGATION OF MARS' ATMOSPHERIC CONDITIONS IN CONNECTION
 WITH AEROBRKING & AEROCAPTURE ACTIVITI
 07/08/1999 - 06/30/2000 FY99: \$21,025 Total: \$21,025
Prin. Invest.: A C BRIDGER
Tech. Officer: ARC/R M HABERLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5336 **SAN JOSE STATE UNIVERSITY** **1948**
 AN INVESTIGATION OF CYCLO-FRONTO-GENESIS MARS' ATMOSPHERE
 07/20/1999 - 01/14/2000 FY99: \$40,000 Total: \$40,000
Prin. Invest.: J L HOLLINGSWORTH
Tech. Officer: ARC/R M HABERLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5338 **SAN JOSE STATE UNIVERSITY** **1949**
 FAR INFRARED EMISSION FROM GALACTIC & EXTRAGALACTIC INTERSTEL-
 LAR GAS
 07/23/1999 - 07/31/2000 FY99: \$31,241 Total: \$31,241
Prin. Invest.: M J KAUFMAN
Tech. Officer: ARC/D J HOLLEN
CASE Category: 11 - ASTRONOMY

NCC 2 5344 **SAN JOSE STATE UNIVERSITY** **1950**
 ASTROBIOLOGY RAPID RATES OF CHANGE
 08/12/1999 - 07/31/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: E P METZGER
Tech. Officer: ARC/H L D'ANTONI
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 5347 **SAN JOSE STATE UNIVERSITY** **1951**
 VOLATILE OXYGENATED HYDROCARBONS - ANALYTICAL SYST EM
 DEVELOPMENT & TROPOSPHERIC ATMOSPHERIC CHEMIST
 09/01/1999 - 01/31/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: P A HAMMILL
Tech. Officer: ARC/H B SINGH, ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5353 **SAN JOSE STATE UNIVERSITY** **1952**
 CLOUD TRANSPORT OF TROPICAL GASES & AEROSOLS
 09/21/1999 - 03/31/2000 FY99: \$27,000 Total: \$27,000
Prin. Invest.: S C RAFKIN
Tech. Officer: ARC/R B CHATFIELD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 50115 **SAN JOSE STATE UNIVERSITY** **1953**
 GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: C
 09/02/1997 - 07/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: S WHITE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 6011 **SANTA CLARA UNIVERSITY** **1954**
 INCREASING MATHEMATICS & SCIENCE ACHIEVEMENT FOR STUDENTS
 THROUGH TEACHER TRAINING
 07/11/1997 - 09/30/1998 FY99: \$0 Total: \$84,193
Prin. Invest.: L MAHON
Tech. Officer: ARC/L A SHAWNEE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 1025 **SANTA CLARA UNIVERSITY** **1955**
 EVALUATING THE EFFECTS OF MAINTENANCE RESOURCE MANAGEMENT
 IN AIR SAFETY
 03/02/1998 - 01/31/2000 FY99: \$203,554 Total: \$399,987
Prin. Invest.: J C TAYLOR
Tech. Officer: ARC/B G KANKI, ARC/M M CONNORS
CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NCC 2 5250 **SANTA CLARA UNIVERSITY** **1956**
 APPLICATION OF FIRST ORDER EXPANSIONS TO TRAJECTORY OPTIMIZA-
 TION OF TRANSPORT AIRCRAFT
 01/12/1998 - 03/31/1999 FY99: \$0 Total: \$51,274
Prin. Invest.: M ARDEMA
Tech. Officer: ARC/J D PHILLIPS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 7 1 **SIERRA COLLEGE** **1957**
 DEVELOP MGMT CURRICULUM TO TRAIN ENGINEERING STUDENTS
 04/14/1994 - 04/14/1998 FY99: -\$24,327 Total: \$418,673
Prin. Invest.: M DOBECK
Tech. Officer: NMO/A HUSAIN
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 5 2948 **SONOMA STATE UNIVERSITY** **1958**
 MAGNETOSPHERIC ACCRETION IN PSR 1259-63
 05/19/1995 - 11/30/1998 FY99: -\$56 Total: \$22,076
Prin. Invest.: L COMINSKY
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3324 **SONOMA STATE UNIVERSITY** **1959**
 INVESTIGATION OF X-RAY VARIABILITY FROM 4U1755-33; LACK OF
 ORBITAL PERIOD EVOLUTION IN EX00748-676
 08/07/1996 - 02/14/1998 FY99: -\$90 Total: \$8,913
Prin. Invest.: L COMINSKY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3702 **SONOMA STATE UNIVERSITY** **1960**
 A TEST OF SPIN-ORBIT COUPLING IN THE 4U0115+63 SYS
 02/11/1997 - 01/31/1999 FY99: \$0 Total: \$36,500
Prin. Invest.: L COMINSKY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4403 **SONOMA STATE UNIVERSITY** **1961**
 CONTINUED ECLIPSE TIMING OF EX00748-676
 05/05/1997 - 05/14/1998 FY99: -\$61 Total: \$4,939
Prin. Invest.: L COMINSKY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7267 **SONOMA STATE UNIVERSITY** **1962**
 GLAST MISSION CONCEPT STUDY AND PUBLIC OUTREACH
 06/29/1998 - 01/31/2000 FY99: \$0 Total: \$45,000
Prin. Invest.: D COMINSKY
Tech. Officer: GSFC/N GEHRELS
CASE Category: 11 - ASTRONOMY

NAG 5 8603 **SONOMA STATE UNIVERSITY** **1963**
 SWIFT EDUCATION AND PUBLIC OUTREACH
 06/23/1999 - 01/31/2000 FY99: \$41,936 Total: \$41,936
Prin. Invest.: L R COMINSKY
Tech. Officer: GSFC/N GEHRELS
CASE Category: 11 - ASTRONOMY

NCC 5 429 **SONOMA STATE UNIVERSITY** **1964**
 SPACE MYSTERIES: INQUIRY-DRIVEN WEB EXPLORATIONS THAT TEACH
 PHYSICAL SCIENCE & MATHEMATICS STANDARD
 09/29/1999 - 09/30/2000 FY99: \$110,000 Total: \$110,000
Prin. Invest.: L COMINSKY *Prin. Invest.:* NONE
Tech. Officer: GSFC/N LAL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1879 **STANFORD UNIVERSITY** **1965**
 DEVELOPMENT OF A COMPOSITE DAMAGE MODULE FOR THE STAGGS
 FINITE ELEMENT CODE
 11/20/1996 - 04/01/1998 FY99: -\$12,714 Total: \$37,456
Prin. Invest.: F K CHANG
Tech. Officer: LARC/J H STAMES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2034 **STANFORD UNIVERSITY** **1966**
 CFD ANALYSIS & DESIGN OF BOUNDARY-LAYER-INGESTING INLETS FOR
 BLENDED-WING-BODY CONCEPT
 03/23/1998 - 12/22/1998 FY99: -\$3,692 Total: \$46,693
Prin. Invest.: I KROO
Tech. Officer: LARC/B L BERRIER, LARC/C A HUNTER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2056 **STANFORD UNIVERSITY** **1967**
 AN EXPANDED TEST PROGRAM FOR THE BLENDED WING BODY 17 (BW
 17) FLIGHT CONTROL TESTBED
 04/14/1998 - 01/31/1999 FY99: \$0 Total: \$85,010
Prin. Invest.: I M KROO
Tech. Officer: LARC/D G MURRI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2107 **STANFORD UNIVERSITY** **1968**
 DEVELOPMENT OF A COMPOSITE DAMAGE MODULE FOR THE STAGS
 FINITE ELEMENT CODE
 09/03/1998 - 06/02/2000 FY99: \$70,000 Total: \$116,700
Prin. Invest.: F K CHANG, NONE
Tech. Officer: LARC/J H STARNES, JR., LARC/P B BOGERT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2144 **STANFORD UNIVERSITY** **1969**
 BLENDED-WING-BODY DESIGN FOR ENHANCED ENVIRONMENTAL
 ACCEPTABILITY
 03/23/1999 - 09/30/2001 FY99: \$118,948 Total: \$118,948
Prin. Invest.: I KROO
Tech. Officer: LARC/R R ANTCLIFF
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 891 **STANFORD UNIVERSITY** **1970**
 "AN INTEGRATED ENVIRONMENT FOR EFFICIENT FORMAL DESIGN AND
 VERIFICATION"
 03/28/1994 - 12/31/1998 FY99: \$0 Total: \$2,542,281
Prin. Invest.: D L DILL
Tech. Officer: ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 892 **STANFORD UNIVERSITY** **1971**
 SOFTWARE DEVELOPMENT TECHNOLOGIES FOR REACTIVE, REAL-TIME,
 & HYBRID SYSTEMS
 03/28/1994 - 12/31/1998 FY99: \$0 Total: \$1,739,565
Prin. Invest.: Z MANNA
Tech. Officer: ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 911 **STANFORD UNIVERSITY** **1972**
 TENSOR FIELD VISUALIZATION
 06/23/1994 - 10/31/1997 FY99: -\$68 Total: \$290,584
Prin. Invest.: L HESSELINK
Tech. Officer: ARC/A A VAZIRI/M G YAMASAKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1065 **STANFORD UNIVERSITY** **1973**
 HEALTH MONITORING OR HELICOPTER TRANSMISSION USING ADAPTIVE
 SIGNAL PROCESSING OF GEARBOX
 07/15/1996 - 05/31/1999 FY99: \$0 Total: \$100,010
Prin. Invest.: T H MENG
Tech. Officer: ARC/E M HUFF
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1070 **STANFORD UNIVERSITY** **1974**
 COLLABORATION DESIGN WITH HIGH FIDELITY DISCIPLINARY MODELS
 08/14/1996 - 09/30/1997 FY99: \$0 Total: \$60,000
Prin. Invest.: I M KROO
Tech. Officer: ARC/H MIURA
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1079 **STANFORD UNIVERSITY** **1975**
 INFRARED SIGNATURE MASKING BY AIR PLASMA RADIATION
 08/23/1996 - 10/31/1999 FY99: \$73,772 Total: \$221,719
Prin. Invest.: C H KRUGER, C O LAUX
Tech. Officer: ARC/W M HUO
CASE Category: 13 - PHYSICS

NAG 2 1113 **STANFORD UNIVERSITY** **1976**
 COMPUTATIONAL STUDY OF FIELD INITIATED SURFACE REACTIONS FOR
 SYNTHESIS OF DIAMOND & SILICON
 02/10/1997 - 12/31/1998 FY99: \$0 Total: \$167,115
Prin. Invest.: C B MUSGRAVE
Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1141 **STANFORD UNIVERSITY** **1977**
 PROPOSAL FOR RESEARCH ON UNSTRUCTURED MESH METHODS FOR
 AERODYNAMIC ANALYSIS & DESIGN
 07/21/1997 - 03/31/1999 FY99: -\$577 Total: \$98,472
Prin. Invest.: G A JAMESON, J J ALSON
Tech. Officer: ARC/S E CLIFF, ARC/D P BENCZE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1213 **STANFORD UNIVERSITY** **1978**
 HIGH SPEED JET NOISE PREDICTION USING NUMERICAL SIMULATIONS
 05/04/1998 - 04/30/1999 FY99: \$0 Total: \$22,979
Prin. Invest.: S K LELE
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1219 **STANFORD UNIVERSITY** **1979**
 ACTIVE CONTROL OF COMBUSTION INSTABILITY IN AIR-BREATHING PRO-
 PULSION SYSTEMS - A COMPUTATIONAL & ...
 05/19/1998 - 11/30/1999 FY99: \$225,000 Total: \$425,000
Prin. Invest.: C T BOWMAN, C F EDWARDS, G RVETSCHE
Tech. Officer: ARC/A A WRAY, ARC/C H SCHULBACH
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1257 **STANFORD UNIVERSITY** **1980**
 GENERATION & CONSERVATION OF DESIGN KNOWLEDGE: NEW MILLEN-
 NIUM
 08/24/1998 - 02/14/2000 FY99: \$80,000 Total: \$150,000
Prin. Invest.: L J LEIFFER
Tech. Officer: ARC/W J CLANCY
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1259 **STANFORD UNIVERSITY** **1981**
 THE STRUCTURE & CHEMISTRY OF HIGH DENSITY INDUCTIVELY
 COUPLED PLASMA DISCHARGES USED IN MICROELECTRONICS
 08/26/1998 - 02/29/2000 FY99: \$101,170 Total: \$121,170
Prin. Invest.: M A CAPPELLI
Prin. Invest.: NONE
Tech. Officer: ARC/S P SHARMA
CASE Category: 13 - PHYSICS

NAG 2 1330 **STANFORD UNIVERSITY** **1982**
 DEVELOPMENT & DEMONSTRATION OF SELF-CALIBRATING PHOTOVOLTAIC
 ARRAY FOR TASK LEVEL CONTROL OF A PLANET
 06/21/1999 - 11/30/1999 FY99: \$99,865 Total: \$99,865
Prin. Invest.: S M ROCK
Tech. Officer: ARC/H THOMAS, ARC/M BUALAT
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1337 **STANFORD UNIVERSITY** **1983**
 ENVIRONMENTAL MONITORING FOR SITUATION ASSESSMENT USING
 MOBILE & FIXED SENSORS
 07/13/1999 - 12/31/1999 FY99: \$170,973 Total: \$170,973
Prin. Invest.: R E FIKES
Tech. Officer: ARC/J A KURIEN, ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1354 **STANFORD UNIVERSITY** **1984**
 ROLE OF ADRENERGIC RECEPTORS IN ADAPTATION TO MICROGRAVITY:
 GENE TARGETED MICE AS A MODEL OF MICROGRAVITY
 07/21/1999 - 02/14/2000 FY99: \$149,997 Total: \$149,997
Prin. Invest.: D BERSTEIN, B K KOBILKA
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIRONMENTAL)

NAG 2 1373 **STANFORD UNIVERSITY** **1985**
 HIGH SPEED JET NOISE PREDICTION USING LARGE EDDY SIMULATIONS
 08/11/1999 - 07/31/2000 FY99: \$49,702 Total: \$49,702
Prin. Invest.: S K LELE, B I VASHI
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1843 **STANFORD UNIVERSITY** **1986**
 DROP BREAKUP IN FLOW THROUGH FLUID BEDS AS MODEL STOCHASTIC
 STRONG FLOWS
 05/20/1996 - 05/19/2000 FY99: \$120,000 Total: \$386,000
Prin. Invest.: E G SHAQTEH
Tech. Officer: GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1887 **STANFORD UNIVERSITY** **1987**
 THE INFLUENCES OF GRAVITY OF COLLOIDAL CRYSTALLIZATION AND
 FIELD-INDUCED AGGREGATION
 05/29/1996 - 06/30/2000 FY99: \$100,000 Total: \$340,000
Prin. Invest.: D A RUFF
Tech. Officer: GRC/D D ROSS, GRC/M A SAKSTEDTER
CASE Category: 13 - PHYSICS

NAG 3 1902 **STANFORD UNIVERSITY** **1988**
 STUDY THE EFFECT OF CONFINEMENT ON TRANSPORT PROPERTIES BY
 MAKING USE OF HELIUM ALONG THE LAMBDALINE
 06/13/1996 – 06/12/1999 FY99: \$0 Total: \$112,000
Prin. Invest.: J A LIPA
Tech. Officer: GRC/B S SINGH
CASE Category: 13 – PHYSICS

NAG 3 1940 **STANFORD UNIVERSITY** **1989**
 RED-SHIFT TEST OF GENERAL RELATIVITY ON SPACE STAT ION USING
 SUPERCONDUCTIVITY CAVITY OSCILLATORS
 09/10/1996 – 09/09/1998 FY99: -\$279 Total: \$199,742
Prin. Invest.: J A LIPA, J TURNEAURE, W W HANSEN
Tech. Officer: GRC/B S SINGH
CASE Category: 13 – PHYSICS

NAG 3 1943 **STANFORD UNIVERSITY** **1990**
 PROBLEMS IN MICROGRAVITY FLUID MECHANICS: THERMO CAPILLARY
 INSTABILITIES & G-JITTER CONVECTION
 09/03/1996 – 08/31/2000 FY99: \$120,000 Total: \$385,000
Prin. Invest.: G M HOMSY
Tech. Officer: GRC/J C DUH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 2393 **STANFORD UNIVERSITY** **1991**
 REMOTE SENSING OF HABITAT EDGES AND THEIR EFFECT ON BIODIV-
 ERSITY
 10/13/1993 – 10/14/1998 FY99: -\$784 Total: \$59,216
Prin. Invest.: P EHRlich
Tech. Officer: GSFC/M L IMHOFF
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 2706 **STANFORD UNIVERSITY** **1992**
 X-RAYS FROM A HIGH VELOCITY PULSAR BOW SHOCK PSR B2224+65
 09/07/1994 – 09/14/1998 FY99: \$0 Total: \$31,928
Prin. Invest.: R ROMANI
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 3077 **STANFORD UNIVERSITY** **1993**
 SOLAR OSCILLATIONS INVESTIGATION – MISSION OBSERVATIONS AND
 DATA ANALYSIS
 09/25/1995 – 12/31/1999 FY99: \$3,010,731 Total: \$22,111,632
Prin. Invest.: P H SCHERRER
Tech. Officer: GSFC/A I POLAND
CASE Category: 11 – ASTRONOMY

NAG 5 3101 **STANFORD UNIVERSITY** **1994**
 SPECTRAL MODELS OF NEUTRON STAR MAGNETOSPHERES
 10/05/1995 – 10/14/1998 FY99: \$28 Total: \$81,993
Prin. Invest.: R W ROMANI
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3102 **STANFORD UNIVERSITY** **1995**
 RELATIVISTIC DISK SEISMOLOGY
 10/05/1995 – 09/30/1999 FY99: \$0 Total: \$180,000
Prin. Invest.: R V WAGONER
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3263 **STANFORD UNIVERSITY** **1996**
 HIGH ENERGY RADIATION FROM ROTATION – POWERED PULSARS (NO
 COST TIME EXTENSION)
 07/01/1996 – 04/30/2000 FY99: \$34,700 Total: \$131,083
Prin. Invest.: R W ROMANI
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3322 **STANFORD UNIVERSITY** **1997**
 INVESTIGATION OF X-RAY VARIABILITY FROM 4U1755-33
 08/07/1996 – 02/14/1998 FY99: \$0 Total: \$15,000
Prin. Invest.: P MICHELSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3332 **STANFORD UNIVERSITY** **1998**
 PROBING THE MATTER DISTRIBUTION IN THE 4U1907+09 SYSTEM WITH
 ASCA
 08/12/1996 – 02/14/1998 FY99: -\$98 Total: \$24,325
Prin. Invest.: P MICHELSON
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3441 **STANFORD UNIVERSITY** **1999**
 DIGITAL TOPOGRAPHY PROPOSAL: LONG TERM MONITORING OF EARTH
 SURFACE CHANGE WITH ERS-1 AND ERS-2...
 01/11/1997 – 10/14/2000 FY99: \$0 Total: \$164,472
Prin. Invest.: H ZEBKER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3637 **STANFORD UNIVERSITY** **2000**
 WWW ACCESS TO STANFORD WIDEBAND DATA
 02/12/1997 – 02/14/1999 FY99: -\$6 Total: \$19,994
Prin. Invest.: D S INAN
Tech. Officer: GSFC/J WILLET
CASE Category: 13 – PHYSICS

NAG 5 3682 **STANFORD UNIVERSITY** **2001**
 DISTRIBUTION OF THE OBSERVED AND INTRINSIC PROPER BURSTS
 01/15/1997 – 07/14/1999 FY99: \$0 Total: \$105,000
Prin. Invest.: V PETROSIAN
Tech. Officer: GSFC/J N NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3732 **STANFORD UNIVERSITY** **2002**
 TOPOGRAPHIC MAPPING IN THE ANTARCTIC ENVIRONMENT USING INTERFER-
 OMETRY
 02/14/1997 – 02/29/2000 FY99: \$49,634 Total: \$161,634
Prin. Invest.: D ZEBKER
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3775 **STANFORD UNIVERSITY** **2003**
 DEVELOPMENT OF LOW TEMPERATURE WIDE BAND HIGH SPEED
 02/13/1997 – 02/14/2000 FY99: \$116,000 Total: \$348,000
Prin. Invest.: P CABRERA
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 3906 **STANFORD UNIVERSITY** **2004**
 RADAR STUDIES OF LUNAR AND PLANETARY SURFACES
 02/21/1997 - 10/31/1999 FY99: \$60,000 Total: \$180,000
Prin. Invest.: G TYLER
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3985 **STANFORD UNIVERSITY** **2005**
 THE EFFECTS OF CHARGED PARTICLE RADIATION ON GRAVI SPACE
 03/03/1997 - 02/14/2000 FY99: \$8,474 Total: \$103,745
Prin. Invest.: D A LIPA
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4038 **STANFORD UNIVERSITY** **2006**
 PHYSICS OF SOLAR ACTIVITY
 02/26/1997 - 02/29/2000 FY99: \$32,520 Total: \$199,297
Prin. Invest.: D A STURROCK
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 - PHYSICS

NAG 5 4321 **STANFORD UNIVERSITY** **2007**
 RADIO OCCULTATION STUDIES OF VENUS' ATMOSPHERE WITH
 04/04/1997 - 12/31/1998 FY99: \$0 Total: \$37,500
Prin. Invest.: P L TYLER
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4322 **STANFORD UNIVERSITY** **2008**
 RESEARCH PLANETARY ATMOSPHERES
 04/04/1997 - 12/31/1999 FY99: \$18,333 Total: \$215,000
Prin. Invest.: D R ESHLEMAN
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4554 **STANFORD UNIVERSITY** **2009**
 PITCH ANGLE SCATTERING AND PRECIPITATION OF RADIAT OBLIQUE
 WHISTLER WAVES
 05/05/1997 - 05/14/2000 FY99: \$76,000 Total: \$188,000
Prin. Invest.: D S INAN
Tech. Officer: GSFC/D EVANS
CASE Category: 13 - PHYSICS

NAG 5 4888 **STANFORD UNIVERSITY** **2010**
 THE WHITE-INOY MOUNTAINS, EASTERN CALIFORNIA: INFL ALTITUDE ON
 SOIL DEVELOPMENT AND BOTANICAL COVER
 08/08/1997 - 06/30/2000 FY99: \$0 Total: \$50,000
Prin. Invest.: G ERNST
Tech. Officer: GSFC/M BALTUCK
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4936 **STANFORD UNIVERSITY** **2011**
 SEARCH FOR UNIQUE ORGANIC BIOMARKERS IN ALH 84001
 06/23/1997 - 05/31/1999 FY99: \$0 Total: \$155,000
Prin. Invest.: R N ZARE
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 5109 **STANFORD UNIVERSITY** **2012**
 DEVELOPMENT OF GLAST, A BROADBAND HIGH-ENERGY GAMMA-RAY
 TELESCOPE
 02/19/1997 - 09/30/1999 FY99: \$372,886 Total: \$1,304,422
Prin. Invest.: P F MICHELSON
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5200 **STANFORD UNIVERSITY** **2013**
 INVESTIGATION OF THE CORONA/CHROMOSPHERE INTERFACE WITH THE
 CHROMOSPHERIC/CORONAL SPECTROHELIOGRAPH
 05/28/1998 - 05/31/2000 FY99: \$252,110 Total: \$466,460
Prin. Invest.: A B WALKER
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6107 **STANFORD UNIVERSITY** **2014**
 SUPPORT OF THE ECOSYSTEM PHYSIOLOGY COMPONENT OF T AND TER-
 RESTRIAL ECOSYSTEM CORE PROJECT
 07/24/1997 - 12/31/1998 FY99: -\$236 Total: \$184,564
Prin. Invest.: H MOONEY
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6112 **STANFORD UNIVERSITY** **2015**
 STRUCTURE OF SOLAR MAGNETIC AND VELOCITY FIELDS
 07/28/1997 - 06/30/2000 FY99: \$191,667 Total: \$263,576
Prin. Invest.: D H SCHERRER
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6148 **STANFORD UNIVERSITY** **2016**
 SURFACE DEFORMATION AND TOPOGRAPHIC MEASUREMENTS FR Y IN THE
 PRESENCE OF VEGETATION
 08/21/1997 - 08/31/2000 FY99: \$16,000 Total: \$146,919
Prin. Invest.: H A ZEBKER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6167 **STANFORD UNIVERSITY** **2017**
 INVERSIION OF TIME DEPENDENT SPACE GEODETIC DATA
 08/01/1997 - 06/30/2000 FY99: \$0 Total: \$202,002
Prin. Invest.: P SEGALL
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6233 **STANFORD UNIVERSITY** **2018**
 ADVANCED ALGORITHM DEVELOPMENT FOR SPACE -BASED GP INCRE-
 MENTALLY FUNDED FY 97 AND 98
 09/18/1997 - 03/31/2000 FY99: \$302,226 Total: \$702,566
Prin. Invest.: J P HOW
Tech. Officer: GSFC/J CROFT
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 6264 **STANFORD UNIVERSITY** **2019**
 HEATING, IONIZATION AND RED SPRITES PRODUCED IN TH QUASI ELEC-
 TROSTATIC THUNDERCLOUD FIELDS
 08/21/1997 - 05/31/2000 FY99: \$89,315 Total: \$200,043
Prin. Invest.: D S INAN
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6537 **STANFORD UNIVERSITY** **2020**
 CENTER OF EXCELLENCE FOR INTEGRATED INSAR AND GPS STUDIES OF
 NATURAL HAZARDS AND LAND SUBSIDENCE
 10/24/1997 – 09/30/1999 FY99: \$0 Total: \$106,000
Prin. Invest.: P SEGALL
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6615 **STANFORD UNIVERSITY** **2021**
 LAND-USE AND LAND-COVER CHANGE IN SONORA, MEXICO
 11/17/1997 – 05/14/2000 FY99: \$0 Total: \$282,183
Prin. Invest.: P MATSON
Tech. Officer: GSFC/A JANETOS
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 6655 **STANFORD UNIVERSITY** **2022**
 UPLINK RADIO INSTRUMENT DEVELOPMENT
 12/24/1997 – 11/30/1999 FY99: \$166,446 Total: \$318,651
Prin. Invest.: G TYLER
Tech. Officer: GSFC/B BETTS
CASE Category: 11 – ASTRONOMY

NAG 5 7144 **STANFORD UNIVERSITY** **2023**
 STUDIES OF THE IMPULSIVE PHASE OF SOLAR FLARE: BASIC MECHANISM AND PARAMETER DISTRIBUTIONS
 04/20/1998 – 04/14/2000 FY99: \$76,789 Total: \$117,630
Prin. Invest.: V PETROSIAN
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 7208 **STANFORD UNIVERSITY** **2024**
 CHEMICAL AND ISOTOPIC ANALYSIS OF TRACE ORGANIC MATTER ON
 METEORITES AND INTERSTELLAR DUST USING
 03/25/1998 – 07/31/2001 FY99: \$140,000 Total: \$160,000
Prin. Invest.: R ZARE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7367 **STANFORD UNIVERSITY** **2025**
 SUPPORT FOR WORKSHOP ON GLOBAL CHANGE AND INVASIVE SPECIES
 05/04/1998 – 05/14/1999 FY99: \$0 Total: \$30,000
Prin. Invest.: H A MOONEY
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7464 **STANFORD UNIVERSITY** **2026**
 A TRANSITION EDGE MICROCALORIMETER SPECTROMETER FOR THE
 EUV AND FUV
 11/30/1998 – 12/31/1999 FY99: \$85,000 Total: \$85,000
Prin. Invest.: A C WALKER, JR.
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 7468 **STANFORD UNIVERSITY** **2027**
 XTE PROPOSAL (30043) – ENERGY DEPENDENCE OF MILLISECOND
 TIMING PHENOMENA IN THE Z-SOURCE
 06/02/1998 – 08/31/1999 FY99: \$0 Total: \$9,903
Prin. Invest.: P F MICHELSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7535 **STANFORD UNIVERSITY** **2028**
 FAST TIMING STUDIES OF GX 340+0 – XTE PROPOSAL (20 059)
 06/26/1998 – 12/31/1999 FY99: \$0 Total: \$22,820
Prin. Invest.: P MICHELSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7609 **STANFORD UNIVERSITY** **2029**
 ABUNDANCES OF CALCIUM-41 AND HAFNIUM-182 IN THE EARLY SOLAR
 SYSTEM
 07/27/1998 – 07/31/2000 FY99: \$63,333 Total: \$80,000
Prin. Invest.: T IRELAND
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7709 **STANFORD UNIVERSITY** **2030**
 LASER DIODE PUMPED YB:YAG SOLID-STATE LASERS FOR SPACE-BASED
 APPLICATIONS
 09/22/1998 – 09/30/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: R BYER
Tech. Officer: GSFC/J BUFTON
CASE Category: 49 – ENGINEERING, OTHER

NAG 5 7835 **STANFORD UNIVERSITY** **2031**
 THE INTERFACE OF TRANSITION REGION AND CORONAL PLASMAS WITH
 THE CHROMOSPHERIC NETWORK
 12/14/1998 – 12/14/1999 FY99: \$77,378 Total: \$77,378
Prin. Invest.: A B WALKER
Tech. Officer: GSFC/J GURMAN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 7874 **STANFORD UNIVERSITY** **2032**
 DISTRIBUTION AND CORRELATIONS OF FLUXES, FLUENCES, DURATIONS,
 AND SPECTRA OF GAMMA RAY BURSTS
 11/30/1998 – 11/30/1999 FY99: \$10,095 Total: \$10,095
Prin. Invest.: V PETROSIAN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 8025 **STANFORD UNIVERSITY** **2033**
 SEPS/CEPPAD SCIENCE INVESTIGATION
 01/12/1999 – 01/14/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: M WALT
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 8040 **STANFORD UNIVERSITY** **2034**
 MESOSPHERIC AND IONOSPHERIC EFFECTS OF RELATIVISTIC ELECTRON
 PRECIPITATION OBSERVED BY THE SAMPEX A
 01/11/1999 – 01/14/2000 FY99: \$52,340 Total: \$52,340
Prin. Invest.: U S INAN
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 – PHYSICS

NAG 5 8563 **STANFORD UNIVERSITY** **2035**
 URBANIZATION, LAND USE AND BIOLOGICAL RESOURCES
 05/24/1999 – 05/31/2000 FY99: \$47,001 Total: \$47,001
Prin. Invest.: M L IMHOFF
Tech. Officer: GSFC/M L IMHOFF
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 8600 **STANFORD UNIVERSITY** **2036**
 X-RAY AND MICROWAVE MODELS IN SUPPORT OF HESSI SOLAR FLARE
 OBSERVATIONS
 06/14/1999 - 06/14/2000 FY99: \$46,260 Total: \$46,260
 Prin. Invest.: V PETROSIAN
 Tech. Officer: GSFC/G D HOLMAN
 CASE Category: 11 - ASTRONOMY

NAG 5 8645 **STANFORD UNIVERSITY** **2037**
 STUDYING THE EFFECTS OF CA, MG, AND K ON AEROSOL SIZE & COM-
 POSITION, NOY & RADIATIVE TRANSFER
 07/13/1999 - 07/31/2000 FY99: \$107,053 Total: \$107,053
 Prin. Invest.: M Z JACOBSON
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8714 **STANFORD UNIVERSITY** **2038**
 VARIATIONS OF THE SOLAR MAGNETIC FIELDS
 08/03/1999 - 08/31/2000 FY99: \$24,000 Total: \$24,000
 Prin. Invest.: P H SCHERRER
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 8 1151 **STANFORD UNIVERSITY** **2039**
 LASER SCATTERING TEMOGRAPHY
 08/18/1995 - 06/30/2000 FY99: \$190,000 Total: \$730,000
 Prin. Invest.: R S FEIGELSON
 Tech. Officer: MSFC/D A REISS
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1430 **STANFORD UNIVERSITY** **2040**
 R/S MINI SATELLITE TEST OF THE EQUIVALENCE PRINCIPLE
 02/01/1998 - 01/31/1999 FY99: \$0 Total: \$844,478
 Prin. Invest.: C W FRANCIS-EVERITT
 Tech. Officer: MSFC/J W POE
 CASE Category: 13 - PHYSICS

NAG 8 1431 **STANFORD UNIVERSITY** **2041**
 R/S HIGH RESOLUTION STUDY OF THE CRITICAL REGION OF OXYGEN
 USING MAGNETIC LEVITATION
 03/05/1998 - 01/31/2003 FY99: \$100,030 Total: \$190,030
 Prin. Invest.: J A LIPA
 Tech. Officer: MSFC/D HUBBARD
 CASE Category: 13 - PHYSICS

NAG 8 1436 **STANFORD UNIVERSITY** **2042**
 R/S A TEST OF SUPERSYMMETRY THEORY BY SEARCHING FOR ANOM-
 ALOUS SHORT RANGE FORCES
 02/06/1998 - 01/31/2000 FY99: \$73,856 Total: \$124,856
 Prin. Invest.: J A LIPA
 Tech. Officer: MSFC/D HUBBARD
 CASE Category: 13 - PHYSICS

NAG 8 1439 **STANFORD UNIVERSITY** **2043**
 R/S FUNDAMENTAL PHYSICS EXPERIMENTS WITH SUPER- CONDUCTING
 CAVITY-STABILIZED OSCILLATORS ON SPACE
 02/01/1998 - 01/31/2003 FY99: \$249,995 Total: \$339,995
 Prin. Invest.: J A LIPA
 Tech. Officer: MSFC/J W POE
 CASE Category: 13 - PHYSICS

NAG 8 1457 **STANFORD UNIVERSITY** **2044**
 R/S INVESTIGATION OF THE CRYSTAL GROWTH OF DIELECTRIC MATERI-
 ALS BY THE BRIDGMAN TECHNIQUE
 02/01/1998 - 01/31/2002 FY99: \$139,000 Total: \$229,000
 Prin. Invest.: R S FEIGELSON
 Tech. Officer: MSFC/C TALLEY
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 2502 **STANFORD UNIVERSITY** **2045**
 NAGW-2502/STANFORD UNIV/STRUCTURE OF SOLAR MAGNETIC AND
 VELOCITY FIELDS
 07/01/1991 - 09/30/1997 FY99: \$0 Total: \$997,000
 Prin. Invest.: P H SCHERRER
 Tech. Officer: HQ/W J WAGNER, HQ/K LANG
 CASE Category: 45 - ELECTRICAL ENGR

NAGW 3375 **STANFORD UNIVERSITY** **2046**
 SPACEBORNE INSTRUMENT TECHNOLOGY DEVELOPMENT FOR B ISTATIC
 RADAR STUDIES OF THE PLANETS
 02/09/1993 - 09/30/1997 FY99: -\$34,548 Total: \$456,023
 Prin. Invest.: G L TYLER
 Tech. Officer: HQ/H C BRINTON
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 4212 **STANFORD UNIVERSITY** **2047**
 SUPPORT OF THE ECOSYSTEM PHYSIOLOGY COMPONENT OF THE IGBP
 GLOBAL CHANGE AND TERRESTRIAL ECOSYSTEMS
 12/16/1994 - 09/30/1997 FY99: -\$1,090 Total: \$270,410
 Prin. Invest.: H A MOONEY
 Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4878 **STANFORD UNIVERSITY** **2048**
 CLEMENTINE BISTATIC RADAR DATA ANALYSIS
 12/11/1995 - 12/31/1997 FY99: \$0 Total: \$167,000
 Prin. Invest.: G TYLER
 Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
 CASE Category: 13 - PHYSICS

NAGW 4943 **STANFORD UNIVERSITY** **2049**
 TOPOGRAPHIC MAPPING IN THE ANTARTIC ENVIRONMENT USING RADAR-
 SAT
 03/22/1996 - 09/30/1998 FY99: -\$3,278 Total: \$49,678
 Prin. Invest.: H ZEBKER
 Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5116 **STANFORD UNIVERSITY** **2050**
 UPLINK RADIO INSTRUMENT DEVELOPMENT
 07/22/1996 - 09/30/1997 FY99: -\$331 Total: \$120,398
 Prin. Invest.: G TYLER
 Tech. Officer: HQ/TKOSTIUK, HQ/H C BRINTON
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 5223 **STANFORD UNIVERSITY** **2051**
 RESEARCH IN PLANETARY ATMOSPHERES
 11/04/1996 - 09/30/1997 FY99: -\$43,280 Total: \$56,720
 Prin. Invest.: V R ESHLEMAN
 Tech. Officer: HQ/J BERGSTALH, HQ/H C BRINTON
 CASE Category: 11 - ASTRONOMY

NAS 1 98139 **STANFORD UNIVERSITY** **2052**
 SAL: SYMBOLIC ANALYSIS LABORATORY
 10/30/1998 - 10/30/2000 FY99: \$415,070 Total: \$415,070
 Prin. Invest.: D L DILL
 Tech. Officer: LARC/P S MINER
 CASE Category: 22 - COMPUTER SCIENCE

NAS 5 31726 **STANFORD UNIVERSITY** **2053**
 EOS - "BIOSPHERE-ATMOSPHERE INTERACTIONS" STUDY
 10/24/1991 - 12/31/1999 FY99: \$183,000 Total: \$1,340,200
 Prin. Invest.: H MOONEY, P VITOUSEK
 Tech. Officer: GSFC/P SELLERS
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 98039 **STANFORD UNIVERSITY** **2054**
 GLAST INSTRUMENT TECHNOLOGY
 07/09/1998 - 02/10/2000 FY99: \$2,186,854 Total: \$2,686,854
 Prin. Invest.: P MICHELSON
 Tech. Officer: GSFC/M D JOSEPH
 CASE Category: 11 - ASTRONOMY

NAS 5 98151 **STANFORD UNIVERSITY** **2055**
 CONSTELLATION - X PROGRAM
 11/27/1998 - 09/30/1999 FY99: \$60,000 Total: \$60,000
 Prin. Invest.: B CABRERA
 Tech. Officer: GSFC/J GRADY
 CASE Category: 11 - ASTRONOMY

NAS 8 39225 **STANFORD UNIVERSITY** **2056**
 GRAVITY PROBE B SCIENCE MISSION INTERIM CONTRACT
 01/18/1995 - 09/30/2003 FY99: \$44,306,306 Total: \$247,148,483
 Prin. Invest.: C W EVERITT, B PARKINSON
 Tech. Officer: MSFC/R S GEVEDEN, MSFC/B RANDOLPH
 CASE Category: 13 - PHYSICS

NCC 1 253 **STANFORD UNIVERSITY** **2057**
 NEW ARCHITECTURES FOR MULTIDISCIPLINARY DESIGN AND OPTIMIZATION
 04/14/1997 - 04/13/1999 FY99: \$1 Total: \$110,685
 Prin. Invest.: I KROO, L L GREEN
 Tech. Officer: LARC/L L GREEN
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 55 **STANFORD UNIVERSITY** **2058**
 THE RESEARCH AND TRAINING ACTIVITIES FOR THE JOINT INSTITUTE FOR AERONAUTICS AND ACOUSTICS
 12/01/1979 - 12/31/1998 FY99: \$0 Total: \$7,966,858
 Prin. Invest.: L ROBERTS, L ROBERTS
 Tech. Officer: ARC/S S DAVIS, ARC/J D MURPHY
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 333 **STANFORD UNIVERSITY** **2059**
 RESEARCH ON CONTROL OF SPACECRAFT MANIPULATOR SYST
 11/01/1987 - 10/31/1999 FY99: \$500,000 Total: \$7,859,798
 Prin. Invest.: R H CANNON
 Tech. Officer: ARC/M H SIMS, ARC/S LAU
 CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 2 460 **STANFORD UNIVERSITY** **2060**
 CENTER FOR TURBULENCE RESEARCH
 12/01/1986 - 03/31/2000 FY99: \$1,000,000 Total: \$14,966,453
 Prin. Invest.: P MOIN, W C REYNOLDS
 Tech. Officer: ARC/M ROGERS
 CASE Category: 46 - MECHANICAL ENGR

NCC 2 721 **STANFORD UNIVERSITY** **2061**
 THE STRUCTURE, FACIES & DEPOSITION OF SILICEOUS S INTER AROUND THERMAL SPRINGS: IMPLICATIONS FOR...
 07/03/1991 - 11/30/1999 FY99: \$72,000 Total: \$467,228
 Prin. Invest.: D R LOWE
 Tech. Officer: ARC/D J DES MARAIS, ARC/S CHANG
 CASE Category: 32 - GEOLOGICAL SCIENCE

NCC 2 908 **STANFORD UNIVERSITY** **2062**
 STUDIES OF PLANETARY RING SYSTEMS
 06/26/1995 - 12/31/1999 FY99: \$140,820 Total: \$547,487
 Prin. Invest.: A L TYLER, M R SHOWALTER
 Tech. Officer: ARC/J N CUZZI
 CASE Category: 11 - ASTRONOMY

NCC 2 1004 **STANFORD UNIVERSITY** **2063**
 TASK LEVEL CONTROL FOR A FULL SEMI-AUTONOMOUS MISSION: TEST PLATFORM DEVELOPMENT & DEMONSTRATION
 08/19/1997 - 06/30/1999 FY99: \$0 Total: \$99,640
 Prin. Invest.: S M ROCK, R CANNON
 Tech. Officer: ARC/M H SIMS, ARC/C MINA
 CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1010 **STANFORD UNIVERSITY** **2064**
 DEVELOPMENT OF 3-D BIOMEDICAL COMPUTATION
 01/07/1998 - 11/30/1999 FY99: \$499,994 Total: \$849,994
 Prin. Invest.: S A SCHENDEL
 Tech. Officer: ARC/K A SOUZA
 CASE Category: 56 - MEDICL

NCC 2 1020 **STANFORD UNIVERSITY** **2065**
 LEARNING AIR TRAFFIC CONTROL BY MEANS OF NEURAL NETWORKS
 02/19/1998 - 10/31/1999 FY99: \$100,000 Total: \$188,000
 Prin. Invest.: B WIDROW
 Tech. Officer: ARC/T J DAVIS, ARC/D ISAACSON
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 1065 **STANFORD UNIVERSITY** **2066**
 AN EXPERIMENTAL & COMPUTATIONAL STUDY OF THE AIRFLOW OVER SHIP DECKS
 09/21/1998 - 03/31/1999 FY99: \$52,139 Total: \$75,624
 Prin. Invest.: J J ALONSO, K LONG, P BRADSHAW
 Tech. Officer: ARC/G G ZILLIAC
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 1074 **STANFORD UNIVERSITY** **2067**
 THE RESEARCH & TRAINING ACTIVITIES FOR THE JOINT INSTITUTE FOR AERONAUTICS AND ACOUSTICS
 12/21/1998 - 10/31/1999 FY99: \$70,000 Total: \$70,000
 Prin. Invest.: B J CANTWELL
 Tech. Officer: ARC/R A MEHTA
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5140 **STANFORD UNIVERSITY** **2068**
 TURBULENCE MEASUREMENT ON A FLAP-EDGE MODEL
 06/30/1995 - 12/31/1997 FY99: -\$72 Total: \$62,009
 Prin. Invest.: P BRADSHAW, B CANTWELL
 Tech. Officer: ARC/J C ROSS
 CASE Category: 46 - MECHANICAL ENGR

NCC 2 5163 **STANFORD UNIVERSITY** **2069**
 PROPOSAL FOR COOPERATION IN INTERNATIONAL SPACE PROGRAMS
 10/23/1995 - 09/30/1997 FY99: \$0 Total: \$77,060
 Prin. Invest.: B LUSIGNAN
 Tech. Officer: ARC/G BRIGGS, ARC/L LEMKE
 CASE Category: 42 - AERONAUTICAL ENGR

NCC 2 5166 **STANFORD UNIVERSITY** **2070**
 ANALYSIS OF THE PHYSICAL PROPERTIES OF DUST SUSPENDED IN THE
 MARS ATMOSPHERE
 12/07/1995 - 09/30/1997 FY99: \$0 Total: \$73,597
 Prin. Invest.: B CANTWELL
 Tech. Officer: ARC/C MCKAY, ARC/B TOON
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5186 **STANFORD UNIVERSITY** **2071**
 HIGHLY ACCURATE RECONSTRUCTION OF COMPUTED TOMOGRAPHY
 VOLUME SCANS FOR THE DETERMINATION OF LOCAL BO
 07/25/1996 - 12/31/1999 FY99: \$0 Total: \$129,000
 Prin. Invest.: S A NAPEL
 Tech. Officer: ARC/R T WHALEN
 CASE Category: 56 - MEDICL

NCC 2 5197 **STANFORD UNIVERSITY** **2072**
 SHARP/TREV REENTRY VEHICLE ELECTRONICS DESIGN
 12/12/1996 - 09/30/1999 FY99: \$0 Total: \$79,851
 Prin. Invest.: B CANTWELL, R TWIGGS
 Tech. Officer: ARC/P KOLODZIEJ
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5200 **STANFORD UNIVERSITY** **2073**
 INVESTIGATION OF A PARTICLE/CONTINUUM HYBRID SIMULATION FOR PAR-
 ALLEL COMPUTATION
 12/20/1996 - 09/30/1998 FY99: \$0 Total: \$76,481
 Prin. Invest.: D BAGANOFF
 Tech. Officer: ARC/W J FEIREISEN
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5205 **STANFORD UNIVERSITY** **2074**
 DIAGNOSTICS FOR PLASMA ENHANCED CHEMICAL VAPOR DEPOSITION
 AND ETCH SYSTEMS
 02/21/1997 - 01/31/1999 FY99: \$0 Total: \$132,220
 Prin. Invest.: M CAPPELLI
 Tech. Officer: ARC/S SHARMA
 CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 5226 **STANFORD UNIVERSITY** **2075**
 AERO-STRUCTURAL OPTIMIZATION OF HSCT CONFIGURATIONS IN TRAN-
 SONIC AND SUPERSONIC
 07/08/1997 - 09/30/1998 FY99: \$0 Total: \$50,755
 Prin. Invest.: J J ALONSI, G A JAMESON
 Tech. Officer: ARC/D P BENCZE, ARC/S E CLIFF
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5247 **STANFORD UNIVERSITY** **2076**
 REPRESENTATION AND INTEGRATION OF SCIENTIFIC INFORMATION
 12/02/1997 - 11/30/1998 FY99: -\$675 Total: \$48,490
 Prin. Invest.: H GARCIA-MOLINA
 Tech. Officer: ARC/M GERALD-YAMAASAKI, ARC/A VAZORO
 CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5249 **STANFORD UNIVERSITY** **2077**
 HUMAN-VEHICLE INTERFACE FOR SEMI-AUTONOMOUS OPERATION OF
 UNINHABITED AERO VEHICLES
 01/23/1998 - 12/31/1999 FY99: \$0 Total: \$64,485
 Prin. Invest.: S ROCK
 Tech. Officer: ARC/J LARIMER
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5256 **STANFORD UNIVERSITY** **2078**
 PROPOSAL FOR ALTERNATIVES FOR HUMAN EXPLORATION OF MARS
 02/23/1998 - 07/31/1998 FY99: \$0 Total: \$20,000
 Prin. Invest.: B LUSIGNAN
 Tech. Officer: ARC/M S MURBACH
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5261 **STANFORD UNIVERSITY** **2079**
 INVESTIGATION OF ATTENTIONAL BOTTLENECKS USING FUNCTIONAL
 MAGNETIC RESONANCE IMAGING
 06/17/1998 - 10/31/1999 FY99: \$36,258 Total: \$62,925
 Prin. Invest.: J E GABRIELI
 Tech. Officer: ARC/R W REMINGTON, ARC/J C JOHNSTON
 CASE Category: 61 - PSYCHOLOGY BIOLOGY

NCC 2 5269 **STANFORD UNIVERSITY** **2080**
 INTEGRATED COMPUTATIONAL SYSTEM FOR AERODYNAMIC STREAMLINING &
 VISUALIZATION
 06/02/1998 - 02/28/1999 FY99: \$0 Total: \$40,000
 Prin. Invest.: L HESSELINK
 Tech. Officer: ARC/D J KORSMEYER, ARC/J D WALTON
 CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5270 **STANFORD UNIVERSITY** **2081**
 EXPLORING CARBON NANOTUBES FOR FUTURE 1NM NANOLITHOGRAPHY
 06/12/1998 - 08/31/2000 FY99: \$30,000 Total: \$70,000
 Prin. Invest.: H DAI
 Tech. Officer: ARC/T R GOVINDAN
 CASE Category: 12 - CHEMISTRY

NCC 2 5272 **STANFORD UNIVERSITY** **2082**
 PLANETARY ROBOTIC VEHICLE MOBILITY TECHNOLOGY
 06/25/1998 - 03/14/2000 FY99: \$20,000 Total: \$40,000
 Prin. Invest.: B B LUSIGNAN
 Tech. Officer: ARC/C R STOKER
 CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5275 **STANFORD UNIVERSITY** **2083**
 DEVELOPMENT & FEASIBILITY TESTING OF IMAGE-GUIDED MINIMALLY
 INVASIVE TISSUE FOR DIAGNOSIS & TREATMENT
 07/13/1998 - 10/31/1998 FY99: \$0 Total: \$6,291
 Prin. Invest.: S S JEFFREY
 Tech. Officer: ARC/R W MAH, ARC/K J SWANSON
 CASE Category: 56 - MEDICL

NCC 2 5278 **STANFORD UNIVERSITY** **2084**
 ARCHITECTURE FOR ACCESS & MUNIPULATION OF HETEROGE NEOUS
 INFORMATION
 07/16/1998 - 10/31/1999 FY99: \$24,022 Total: \$118,875
Prin. Invest.: H GARCIA-MOLINA, NONE
Tech. Officer: ARC/M GERALD-YAMASAKI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5286 **STANFORD UNIVERSITY** **2085**
 AUTOMATED INTERNET-BASED CONTROL OF SPACECRAFT GRO UNDSTA-
 TIONS
 08/04/1998 - 07/31/1999 FY99: \$24,974 Total: \$39,974
Prin. Invest.: B J CANTWELL, R J TWIGGS
Tech. Officer: ARC/K J SWANSON
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5298 **STANFORD UNIVERSITY** **2086**
 THEORETICAL MODELING OF AUTOCATALYTIC MOLECULAR SYSTEMS
 10/22/1998 - 03/31/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: R B LAUGHLIN
Tech. Officer: ARC/J D SCARGLE, ARC/S P COLOMBANO
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5335 **STANFORD UNIVERSITY** **2087**
 SHARP SOUNDING ROCKET EMPEIRMENT & ENTRY SIMULATIO N
 07/23/1999 - 04/14/2000 FY99: \$35,000 Total: \$35,000
Prin. Invest.: B CANTWELL, R TWIGGS
Tech. Officer: ARC/P KOLODZIEJ, ARC/D J RASKY
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5350 **STANFORD UNIVERSITY** **2088**
 SIMULATION-BASED PROTOYPTING OF SOLID-STATE QUANTUM COMPUT-
 ERS
 09/15/1999 - 12/31/1999 FY99: \$30,000 Total: \$30,000
Prin. Invest.: K CHO
Tech. Officer: ARC/T R GOVINDAN
CASE Category: 13 - PHYSICS

NCC 2 5352 **STANFORD UNIVERSITY** **2089**
 THE STRUCTURE & CHEMISTRY OF HIGH DENSITY INDUCTIV ELY
 COUPLED PLASMA DEISCHARGES USED IN MICROELECT
 09/22/1999 - 11/14/1999 FY99: \$11,000 Total: \$11,000
Prin. Invest.: M A CAPPELLI
Tech. Officer: ARC/S P SHARMA
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5354 **STANFORD UNIVERSITY** **2090**
 A STUDY OF RADIO TRANSMISSION THROUGH THE ICE OF J UPITER'S
 MOON EUROPA
 09/23/1999 - 11/14/1999 FY99: \$19,558 Total: \$19,558
Prin. Invest.: A C FRASER-SMITH
Tech. Officer: ARC/H W JONES
CASE Category: 45 - ELECTRICAL ENGR

NCC 3 640 **STANFORD UNIVERSITY** **2091**
 ATTENUATION OF GAS TURBULENCE BY A NEARIT STATIONARY DISPER-
 SION OF FINE PARTICLES
 08/18/1998 - 12/31/2002 FY99: \$100,000 Total: \$180,000
Prin. Invest.: J K EATON
Tech. Officer: GRC/F CHARIMONTE
CASE Category: 46 - MECHANICAL ENGR

NCC 5 214 **STANFORD UNIVERSITY** **2092**
 GLAST - SUPPORT OF GAMMA-RAY LARGE AREA SPACE TELE CONCEPT
 STUDY ACTIVITIES
 07/03/1997 - 06/30/1999 FY99: \$0 Total: \$171,871
Prin. Invest.: P F MICHELSON, NONE
Tech. Officer: GSFC/N GEHRELS
CASE Category: 11 - ASTRONOMY

NGT 51238 **STANFORD UNIVERSITY** **2093**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 09/08/1994 - 06/30/1998 FY99: -\$546 Total: \$65,454
Prin. Invest.: M CAPPELLI
Tech. Officer: GRC/F MONTEGANI
CASE Category: 46 - MECHANICAL ENGR

NGT 70364 **STANFORD UNIVERSITY** **2094**
 GRADUATE STUDENT RESEARCHERS PROGRAM (UMF)
 09/11/1993 - 06/30/1998 FY99: -\$777 Total: \$87,223
Prin. Invest.: A WALKER
Tech. Officer: HQ/D K RUSSELL
CASE Category: 13 - PHYSICS

NGT 2 52207 **STANFORD UNIVERSITY** **2095**
 TASK-LEVEL CONTROL FOR A REDUNDANT MANIPULATOR
 09/14/1995 - 03/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: R H CANNON, G A HUNT
Tech. Officer: ARC/M H SIMS, ARC/S LAU
CASE Category: 41 - AERONAUTICAL ENGR

NGT 2 52208 **STANFORD UNIVERSITY** **2096**
 INTELLIGENT MACHANISMS AND REHABILITATION ROBOTICS
 09/21/1995 - 08/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: L LEIFER, M J JOHNSON
Tech. Officer: ARC/M H SIMS, ARC/S LAU
CASE Category: 46 - MECHANICAL ENGR

NGT 2 52211 **STANFORD UNIVERSITY** **2097**
 AN INTEGRATED SENSOR TELEMETRY SYSTEM
 10/12/1995 - 09/14/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: G KOVACS, R ZOMORA
Tech. Officer: ARC/J W HINES
CASE Category: 45 - ELECTRICAL ENGR

NGT 2 52212 **STANFORD UNIVERSITY** **2098**
 A SUMMER PROGRAM OF NASA SUMMER FACULTY FELLOWSHIP S AT
 AMES RESEARCH, DRYDEN FLIGHT RESEARCH CENTER
 06/04/1996 - 03/31/2000 FY99: \$425,000 Total: \$1,836,000
Prin. Invest.: G S SPRINGER, M E TAUBER
Tech. Officer: ARC/M M MOORE, ARC/S A STANLEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 2 52220 **STANFORD UNIVERSITY** **2099**
 TURBULENCE MEASUREMENTS ON A WING FLAP EDGE & WING SLAT
 MODEL
 09/03/1996 - 11/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: B CANTWELL, P J MORIARTY
Tech. Officer: ARC/J C ROSS
CASE Category: 41 - AERONAUTICAL ENGR

NGT 2 52246 **STANFORD UNIVERSITY** **2100**
 DETERMINATION OF CALCANEAL BONE DENSITY CHANGES OF SPINAL
 CORD INJURED PATIENTS
 08/20/1998 - 09/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: CARTER
Tech. Officer: ARC/R T WHALEN
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 92 **STANFORD UNIVERSITY** **2101**
 RADIO DIAGNOSTICS OF AURORAL HISS AND ASSOCIATED PLASMA DEN-
 SITY STRUCTURES/STUDENT: MARIA SALVATI
 06/09/1999 - 09/14/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: U UMRAN
Tech. Officer: GSFC/M S BURRELL
CASE Category: 45 - ELECTRICAL ENGR

NGT 5 30018 **STANFORD UNIVERSITY** **2102**
 ANTHROPOGENIC CHANGES IN GRASSLANDS: CONSEQUENCES
 ATMOSPHERIC CARBON DIOXIDE AND SPECIES INVASIONS
 10/14/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: H MOONEY
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30130 **STANFORD UNIVERSITY** **2103**
 BIOGEOCHEMICAL CONTROLS OVER THE PRODUCTION & LOSS OF DIS-
 SOLVED ORGANIC NUTRIENTS IN LOWLAND TROPIC
 10/14/1997 - 08/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: D VITOUSE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30204 **STANFORD UNIVERSITY** **2104**
 LAND-USE CHANGE, AGRICULTURAL RUNOFF, & GREENHOUSE GASES IN
 TWO ESTUARIES OF SOUTHERN SONORA MEXICO
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: P MATSON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30216 **STANFORD UNIVERSITY** **2105**
 PHYSIO-CHEMICAL AND BIOLOGICAL CONTROL OVER THE FA TE OF
 NITROGEN ANDPHOSPHORUS IN TROPICAL SOIL
 08/24/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: P M VITOUSEK
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50044 **STANFORD UNIVERSITY** **2106**
 THE SEARCH FOR A DEFINITIVE BLACK HOLE SIGNATURE: PED MODES OF
 DISK OSCILLATION
 07/17/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: R WAGONER
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50075 **STANFORD UNIVERSITY** **2107**
 SENSING AND CONTROL TECHNOOGIES FOR FORMATION FLYI
 08/26/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: J HOW
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50101 **STANFORD UNIVERSITY** **2108**
 ASSESSING LINKS BETWEEN BIODIVERSITY AND ECOSYSTEM FORESTS
 09/06/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: C FIELD
Tech. Officer: GSFC/M WEI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50227 **STANFORD UNIVERSITY** **2109**
 GLOBAL LIGHTNING DETECTION AND LOCATION USING LONG RANGE VLF
 SFERICMEASUREMENTS
 09/29/1998 - 08/31/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: U INAN, WOOD
Tech. Officer: HQ/A NURRIDIN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 50254 **STANFORD UNIVERSITY** **2110**
 MULTI-SPECTRAL OBSERVATIONS OF THE SOLAR CORONA, CHROMO-
 SPHERE AND TRANSITION REGION
 06/10/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: A B WALKER, JR.
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 6 **STANFORD UNIVERSITY** **2111**
 DYNAMIC SIMULATION OF ROBOTIC ENVIRONMENTS
 06/29/1995 - 10/30/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: O KHATIB
Tech. Officer: JSC/D G SOCKOREZ
CASE Category: 22 - COMPUTER SCIENCE

NGT 9 28 **STANFORD UNIVERSITY** **2112**
 TASK-LEVEL CONTROL FOR SPACE ROBOTIC MANIPULATORS
 09/25/1997 - 09/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: J HOW
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT10 52619 **STANFORD UNIVERSITY** **2113**
 GSRP TRAINING GRANT
 01/20/1999 - 07/30/2000 FY99: \$38,667 Total: \$38,667
Prin. Invest.: C S CRIDDLE
Tech. Officer: KSC/R M WHEELER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3647 THE SCRIPPS REASERCH INSTITUTE (TSRI) -LA JOLLA **2114**
 EVOLUTION OF CATALYTIC RNA IN THE LABORATORY
 03/06/1997 - 11/30/1999 FY99: \$0 Total: \$522,699
Prin. Invest.: D JOYCE
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3984 THE SCRIPPS REASERCH INSTITUTE (TSRI) -LA JOLLA **2115**
 GLOBAL SURFACE ULTRAVIOLET RADIATION CLIMATOLOGY F
 03/03/1997 - 01/31/1999 FY99: -\$107 Total: \$29,897
Prin. Invest.: D LUBIN
Tech. Officer: GSFC/J KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5191 THE SCRIPPS REASERCH INSTITUTE (TSRI) -LA JOLLA 2116
 SATELLITE REMOTE SENSING STUDIES OF BIOLOGICAL AND BIO-
 GEOCHEMICAL PROCESSES IN THE OCEAN
 04/21/1998 - 03/31/2000 FY99: \$20,000 Total: \$38,852
Prin. Invest.: M VERNET
Tech. Officer: GSFC/F E HOGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 1055 THE SCRIPPS REASERCH INSTITUTE (TSRI) -LA JOLLA 2117
 SELF-REPRODUCING MOLECULAR SYSTEMS & DARINIAN CHEM ISTRY
 08/27/1998 - 06/30/2003 FY99: \$840,000 Total: \$1,175,000
Prin. Invest.: R GHADIRI
Tech. Officer: ARC/L J CAROFF, ARC/S CHANG
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 1 2191 UNIVERSITY OF CALIFORNIA - BERKELEY 2118
 MODELG ISOTOPE FRACTIONATION IN STRATOSP C02/N2O/ CH4&03,INVEST
 STRATOS CHEM/TRANSPORT, STRAT/TROPOS
 05/17/1999 - 03/31/2002 FY99: \$95,725 Total: \$95,725
Prin. Invest.: K A BOERING, NONE
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 711 UNIVERSITY OF CALIFORNIA - BERKELEY 2119
 "ANTENNA COUPLED MICROBOLOMETER"
 07/16/1991 - 11/30/1998 FY99: \$0 Total: \$383,000
Prin. Invest.: P L RICHARDS
Tech. Officer: ARC/C R MCCREIGHT, ARC/R E MCMURRAY
CASE Category: 13 - PHYSICS

NAG 2 1039 UNIVERSITY OF CALIFORNIA - BERKELEY 2120
 TOOLS FOR NONLINEAR CONTROL SYSTEMS DESIGN
 04/17/1996 - 11/30/1999 FY99: \$60,000 Total: \$260,372
Prin. Invest.: S S SASTRY
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1110 UNIVERSITY OF CALIFORNIA - BERKELEY 2121
 IN SITU MEASUREMENTS OF CIONO2,CIO,BRO,NO2 & N2O5 FROM THE
 ER-2 DURING POLARIS
 02/06/1997 - 09/30/1999 FY99: \$58,031 Total: \$208,444
Prin. Invest.: R C COHEN
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1135 UNIVERSITY OF CALIFORNIA - BERKELEY 2122
 ALGORITHMS FOR VISUAL SEARCH AND THE PATHFINDER RO VER
 06/25/1997 - 11/30/1999 FY99: \$75,000 Total: \$175,000
Prin. Invest.: L W STARK
Tech. Officer: ARC/M M SIMS
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1177 UNIVERSITY OF CALIFORNIA - BERKELEY 2123
 RESEARCH ON THE APPLICATION OF FUZZY LOGIC & GRANU LAR COM-
 PUTING & SOFT COMPUTING TO SYSTEM ANALYSIS
 02/11/1998 - 12/31/1998 FY99: \$0 Total: \$66,553
Prin. Invest.: L A ZADEH
Tech. Officer: ARC/B J GLASS
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1210 UNIVERSITY OF CALIFORNIA - BERKELEY 2124
 FORMAL METHODS FOR SOFTWARE EVOLUTION MODELING INT ERFACE
 05/07/1998 - 07/31/2000 FY99: \$200,000 Total: \$449,999
Prin. Invest.: A AOLEM
Tech. Officer: ARC/M R LOWRY
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1214 UNIVERSITY OF CALIFORNIA - BERKELEY 2125
 MOCHA-MODULARITY IN MODEL CHECKING
 05/05/1998 - 03/31/2000 FY99: \$400,000 Total: \$850,000
Prin. Invest.: T A HENZINGER
Tech. Officer: ARC/M R LOWREY
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1255 UNIVERSITY OF CALIFORNIA - BERKELEY 2126
 HIGH SENSITIVITY HIGH RESOLUTION VIDEO CAMERA FOR OPTICAL IMAG-
 ING OF DYNAMIC RETINAL ACTIVITY
 08/26/1998 - 09/30/1998 FY99: \$0 Total: \$19,750
Prin. Invest.: F S WERBLIN
Tech. Officer: ARC/C C JORGENSEN, ARC/C L JACKSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1275 UNIVERSITY OF CALIFORNIA - BERKELEY 2127
 SUPERCONDUCTING BOLOMETERS FOR INFRARED & MILLIMET ER WAVE-
 LENGTHS
 12/29/1998 - 12/14/1999 FY99: \$65,000 Total: \$65,000
Prin. Invest.: P L RICHARDS
Tech. Officer: ARC/C R MCCREIGHT
CASE Category: 13 - PHYSICS

NAG 2 1351 UNIVERSITY OF CALIFORNIA - BERKELEY 2128
 EARLY GRAVITROPIC EVENTS IN ROOTS OF ARABIDOPSIS: CA2+ & H+
 FLUXES IN THE COLUMELLA CELLS
 07/21/1999 - 12/31/1999 FY99: \$46,274 Total: \$46,274
Prin. Invest.: L J FELDMAN
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1359 UNIVERSITY OF CALIFORNIA - BERKELEY 2129
 COMPARATIVE ANALYSIS OF SEGMENTATION, DURING EMBRY OGENESIS,
 POSTEMBRYONIC GROWTH & REGENERATION, AM
 07/23/1999 - 01/31/2000 FY99: \$85,615 Total: \$85,615
Prin. Invest.: D A WEISBLAT
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1361 UNIVERSITY OF CALIFORNIA - BERKELEY 2130
 HEMICHORDATES & THE ORIGIN OF CHORDATES
 07/27/1999 - 03/14/2000 FY99: \$120,000 Total: \$120,000
Prin. Invest.: J C GERHART
Tech. Officer: ARC/M M AVERNER, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1941 UNIVERSITY OF CALIFORNIA - BERKELEY 2131
 FLUID INTERFACE BEHAVIOR UNDER LOW & ZERO GRAVITY CONDITIONS
 08/15/1996 - 11/30/1998 FY99: -\$1,625 Total: \$198,808
Prin. Invest.: P CONCUS, R FINN
Tech. Officer: GRC/M M WEISLOGEL
CASE Category: 21 - MATHEMATICS

NAG 3 2026 UNIVERSITY OF CALIFORNIA - BERKELEY 2132
 A FUNDAMENTAL STUDY OF SMOLDERING COMBUSTION IN MICROGRAVITY
 03/14/1997 - 03/15/2002 FY99: \$174,830 Total: \$442,436
 Prin. Invest.: A C FERNANDEZ-PELLO
 Tech. Officer: GRC/D L URBAN
 CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2103 UNIVERSITY OF CALIFORNIA - BERKELEY 2133
 LOW EMISSION, HIGH PERFORMANCE GAS TURBINE ENGINES EXPERIMENT AND MODEL RESEARCH AND DEVELOPMENT
 03/04/1998 - 01/07/2001 FY99: \$97,734 Total: \$226,946
 Prin. Invest.: R DIBBLE
 Tech. Officer: GRC/R R TACINA, GRC/N S LIU
 CASE Category: 41 - AERONAUTICAL ENGRN

NAG 3 2105 UNIVERSITY OF CALIFORNIA - BERKELEY 2134
 MICROGRAVITY EFFECTS ON NEAR - BUBBLE MICROSCALE TRANSPORT DURING BOILING OF BINARY FLUID MIXTURES
 02/26/1998 - 12/31/2000 FY99: \$119,839 Total: \$169,583
 Prin. Invest.: V P CAREY
 Tech. Officer: GRC/B J MOTIL
 CASE Category: 13 - PHYSICS

NAG 3 2152 UNIVERSITY OF CALIFORNIA - BERKELEY 2135
 WEAKLY NONLINEAR DESCRIPTION OF PARAMETRIC INSTABILITIES
 06/09/1998 - 12/31/2002 FY99: \$100,000 Total: \$175,000
 Prin. Invest.: E KNOBLOCK
 Tech. Officer: GRC/J R SKARDA
 CASE Category: 13 - PHYSICS

NAG 3 2221 UNIVERSITY OF CALIFORNIA - BERKELEY 2136
 NUMERICAL STUDY OF BUOYANCY AND DIFFERENTIAL DIFFUSION EFFECTS ON THE STRUCTURE AND DYNAMICS OF TRI
 12/29/1998 - 11/11/2001 FY99: \$45,373 Total: \$45,373
 Prin. Invest.: J CHEN
 Tech. Officer: GRC/K SACKSTEDER
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 696 UNIVERSITY OF CALIFORNIA - BERKELEY 2137
 A PROPOSAL TO FLY THE EUV/FUV SPECTROMETER ON ORFEUS FOR ASTRO-SPAS I & II
 12/18/1992 - 02/29/2000 FY99: \$44,002 Total: \$2,839,678
 Prin. Invest.: M V HURWITZ
 Tech. Officer: GSFC/W B JOHNSN
 CASE Category: 13 - PHYSICS

NAG 5 959 UNIVERSITY OF CALIFORNIA - BERKELEY 2138
 ELECTRON REFLECTOMETER ADDITION TO THE MAGNETIC FIELDS INVESTIGATION ON THE MARS OBSERVER MISSION
 08/01/1987 - 01/14/2000 FY99: \$156,215 Total: \$1,778,915
 Prin. Invest.: R P LIN, C F MCKEE
 Tech. Officer: GSFC/M H ACUNA
 CASE Category: 13 - PHYSICS

NAG 5 1360 UNIVERSITY OF CALIFORNIA - BERKELEY 2139
 A STUDY OF THE UNIFORMITY OF THE CATALOG OF GALAXIES EXTRACTED FROM THE IRAS DATA
 04/12/1990 - 11/30/1997 FY99: \$0 Total: \$506,400
 Prin. Invest.: J SILK
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 2718 UNIVERSITY OF CALIFORNIA - BERKELEY 2140
 CONTINUED ANALYSIS OF GEOTAIL ELECTRIC FIELD DATA
 09/07/1994 - 09/30/1999 FY99: \$0 Total: \$331,500
 Prin. Invest.: F S MOZER
 Tech. Officer: GSFC/D FAIRFIELD
 CASE Category: 11 - ASTRONOMY

NAG 5 2815 UNIVERSITY OF CALIFORNIA - BERKELEY 2141
 ANALYSIS OF DATA FROM THE 3-D PLASMA AND ENERGETIC PARTICLE EXPERIMENT ON THE GGS WIND SPACECRAFT
 12/12/1994 - 07/14/1998 FY99: \$0 Total: \$3,056,300
 Prin. Invest.: R P LIN
 Tech. Officer: GSFC/K W OGLIVIE
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 2875 UNIVERSITY OF CALIFORNIA - BERKELEY 2142
 A SCIENCE INFRASTRUCTURE FOR ACCESS TO EARTH AND SPACE SCIENCE DATA THROUGH THE NATION'S SCIENCE...
 01/19/1995 - 01/31/1999 FY99: \$0 Total: \$1,050,000
 Prin. Invest.: C CHRISTIAN
 Tech. Officer: GSFC/F HASLER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3073 UNIVERSITY OF CALIFORNIA - BERKELEY 2143
 PHYSICS OF ROTATION POWERED PULSAR AND THEIR NEBULAE
 09/25/1995 - 09/30/1999 FY99: \$0 Total: \$192,000
 Prin. Invest.: J ARONS
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3081 UNIVERSITY OF CALIFORNIA - BERKELEY 2144
 THEORETICAL STUDIES IN STAR FORMATION
 11/01/1995 - 05/14/1999 FY99: \$0 Total: \$150,000
 Prin. Invest.: S W STAHLER
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3126 UNIVERSITY OF CALIFORNIA - BERKELEY 2145
 FAR ULTRAVIOLET STUDIES OF SOLAR TRANSIENT PHENOMENA USING THE SOHO SATELLITE
 10/19/1995 - 10/31/1998 FY99: \$0 Total: \$250,000
 Prin. Invest.: D W SIEGMUND
 Tech. Officer: GSFC/D T POLAND
 CASE Category: 11 - ASTRONOMY

NAG 5 3146 UNIVERSITY OF CALIFORNIA - BERKELEY 2146
 THEORETICAL STUDIES OF THE EARLY UNIVERSE
 11/14/1995 - 11/14/1998 FY99: \$0 Total: \$300,000
 Prin. Invest.: J SILK
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3182 UNIVERSITY OF CALIFORNIA - BERKELEY 2147
MISSION OPERATIONS AND DATA ANALYSIS FOR THE ELECTRIC FIELD
EXPERIMENT ON POLAR
03/13/1996 - 09/30/1999 FY99: \$469,541 Total: \$2,276,459
Prin. Invest.: F S MOZER
Tech. Officer: GSFC/R A HOFFMAN
CASE Category: 13 - PHYSICS

NAG 5 3280 UNIVERSITY OF CALIFORNIA - BERKELEY 2148
HIGH RESOLUTION OBSERVATIONS FROM SPACE: NEW INSIGHTS INTO
DARK MATTER AND GALAXY FORMATION
07/03/1996 - 07/14/2000 FY99: \$107,000 Total: \$406,700
Prin. Invest.: T BROADHURST
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3399 UNIVERSITY OF CALIFORNIA - BERKELEY 2149
THE SPECTRAL EVOLUTION OF HOT WHITE DWARFS AS SEEN BY EUVE
09/13/1996 - 09/14/1998 FY99: -\$47 Total: \$59,553
Prin. Invest.: D DUPUIS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3470 UNIVERSITY OF CALIFORNIA - BERKELEY 2150
DISCOVERING NEW SOURCES WITH THE EUVE RIGHT ANGLE
10/30/1996 - 06/30/1998 FY99: \$0 Total: \$49,951
Prin. Invest.: D CHRISTIAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3471 UNIVERSITY OF CALIFORNIA - BERKELEY 2151
DANCING WITH DISKS: TEMPORAL BEHAVIOR OF T TAURI S
10/30/1996 - 10/31/1999 FY99: \$0 Total: \$109,981
Prin. Invest.: G S BASRI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3499 UNIVERSITY OF CALIFORNIA - BERKELEY 2152
COSMOLOGICAL STUDIES OF THE COSMIC MICROWAVE BACKGROUND
11/27/1996 - 11/30/1999 FY99: \$74,700 Total: \$177,162
Prin. Invest.: M I DAVIS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3500 UNIVERSITY OF CALIFORNIA - BERKELEY 2153
ADDING THE MARS '96 GAMMA-RAY BURST EXPERIMENT TO RY NETWORK
11/27/1996 - 11/30/1999 FY99: \$34,250 Total: \$103,350
Prin. Invest.: K C HURLEY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3520 UNIVERSITY OF CALIFORNIA - BERKELEY 2154
SOLAR X-RAY BURSTS AND ELECTRON ACCELERATION DOWN
11/13/1996 - 11/14/1997 FY99: -\$5,081 Total: \$14,919
Prin. Invest.: R P LIN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3556 UNIVERSITY OF CALIFORNIA - BERKELEY 2155
A MULTI-WAVELENGTH STUDY OF A COMPLETE SAMPLE OF N
01/04/1997 - 12/14/2000 FY99: \$125,000 Total: \$370,000
Prin. Invest.: A V FILIPPENKO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3596 UNIVERSITY OF CALIFORNIA - BERKELEY 2156
MISSION OPERATIONS AND DATA ANALYSIS FOR THE FAST AURORAL
SNAPSHOT EXPLORER (FAST) MISSION
01/25/1997 - 03/14/2000 FY99: \$2,267,000 Total: \$9,256,000
Prin. Invest.: C W CARLSON
Tech. Officer: GSFC/R F PFAFF, JR.
CASE Category: 12 - CHEMISTRY

NAG 5 3809 UNIVERSITY OF CALIFORNIA - BERKELEY 2157
THE DYNAMICS OF PHOTON BUBBLES IN ACCRETION POWERED
01/20/1997 - 04/14/2000 FY99: \$76,000 Total: \$219,000
Prin. Invest.: R I KLIEN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3811 UNIVERSITY OF CALIFORNIA - BERKELEY 2158
IMPROVING THE 3RD INTERPLANETARY NETWORK OF GAMMA-
01/14/1997 - 01/14/1999 FY99: \$0 Total: \$73,000
Prin. Invest.: K C HURLEY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3813 UNIVERSITY OF CALIFORNIA - BERKELEY 2159
HIDDEN COMPANIONS TO EARLY TYPE STARS
01/14/1997 - 01/14/1999 FY99: \$0 Total: \$6,000
Prin. Invest.: N CRAIG
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 3913 UNIVERSITY OF CALIFORNIA - BERKELEY 2160
PHOTOCATHODE, MICROCHANNEL PLATE AND DELAY LINE TELEVISION-
VISIBLE DETECTOR SYSTEMS
02/21/1997 - 06/14/2000 FY99: \$304,500 Total: \$785,100
Prin. Invest.: D H SIEGMUND
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 3916 UNIVERSITY OF CALIFORNIA - BERKELEY 2161
DEVELOPMENT OF A RADIO TOMOGRAPHY MISSION FOR INVESTIGATING MAGNETOSPHERE
02/21/1997 - 02/14/2000 FY99: \$0 Total: \$160,000
Prin. Invest.: D E ERGUN
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 3941 UNIVERSITY OF CALIFORNIA - BERKELEY 2162
DEVELOPMENT OF DATA ANALYSIS, COMPRESSION AND VISUALIZATION OF LARGE DATA
SETS IN ASTROPHYSICS AND COSMOLOGY
03/03/1997 - 02/28/2000 FY99: \$181,000 Total: \$423,000
Prin. Invest.: G SMOOT
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 3951 UNIVERSITY OF CALIFORNIA - BERKELEY 2163
 HIGH EFFICIENCY EUV/FUV INTERFEROMETRIC SPECTROSCO
 02/12/1997 - 02/14/2000 FY99: \$75,000 Total: \$300,000
Prin. Invest.: D EDELSTEIN
Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 4090 UNIVERSITY OF CALIFORNIA - BERKELEY 2164
 FILTERS FOR THE FAR ULTRAVIOLET REGION
 03/18/1997 - 10/31/1999 FY99: \$0 Total: \$132,900
Prin. Invest.: D H SIEGMUND
Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 4109 UNIVERSITY OF CALIFORNIA - BERKELEY 2165
 PRE-LAUNCH EQUATOR-S EFFORT
 04/01/1997 - 09/30/1998 FY99: \$0 Total: \$85,000
Prin. Invest.: R P LIN
Tech. Officer: GSFC/M HESSE
 CASE Category: 13 - PHYSICS

NAG 5 4181 UNIVERSITY OF CALIFORNIA - BERKELEY 2166
 THE PHYSICS OF FLARING ATMOSPHERES
 03/19/1997 - 07/14/1999 FY99: \$24,792 Total: \$136,000
Prin. Invest.: D H FISHER
Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 4194 UNIVERSITY OF CALIFORNIA - BERKELEY 2167
 SILICON DIFFRACTION GRATINGS FOR ULTRAVIOLET APPLI
 03/25/1997 - 03/31/2000 FY99: \$120,001 Total: \$288,068
Prin. Invest.: D V HURWITZ
Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 4202 UNIVERSITY OF CALIFORNIA - BERKELEY 2168
 JOVIAN RING SYSTEM
 03/17/1997 - 03/31/2000 FY99: \$74,000 Total: \$111,000
Prin. Invest.: D DE PATER
Tech. Officer: GSFC/W HUEBNER
 CASE Category: 11 - ASTRONOMY

NAG 5 4226 UNIVERSITY OF CALIFORNIA - BERKELEY 2169
 IMAGING THE DISKS AROUND YSO'S WITH THE BIMA MM AR
 03/25/1997 - 09/30/1999 FY99: \$30,000 Total: \$65,000
Prin. Invest.: D J WELCH
Tech. Officer: GSFC/D NAVA
 CASE Category: 11 - ASTRONOMY

NAG 5 4454 UNIVERSITY OF CALIFORNIA - BERKELEY 2170
 BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF TH KGROUND
 ON ANGULAR SCALES OF 0.2 TO 40 DEGREES
 06/16/1997 - 01/31/2000 FY99: \$150,000 Total: \$450,000
Prin. Invest.: D L RICHARD
Tech. Officer: GSFC/H THRONSON
 CASE Category: 11 - ASTRONOMY

NAG 5 4521 UNIVERSITY OF CALIFORNIA - BERKELEY 2171
 CARBON AND SILICON CARBIDE CLUSTERS AND THEIR RELA DUST/ LAB-
 ORATORY INVESTIGATION OF THE UNIDENTIFIE
 05/08/1997 - 04/30/2000 FY99: \$100,000 Total: \$380,000
Prin. Invest.: D J SAYKALLY
Tech. Officer: GSFC/G STRINGFELLOW
 CASE Category: 11 - ASTRONOMY

NAG 5 4675 UNIVERSITY OF CALIFORNIA - BERKELEY 2172
 CO-INVESTIGATOR PARTICIPATION IN THE MARS 94/96 MI ARS-SOLAR
 WIND INTERACTION:TOPSIDE SOUNDER AND MA
 06/27/1997 - 01/31/1998 FY99: -\$15,000 Total: \$0
Prin. Invest.: D LUHMANN
Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4758 UNIVERSITY OF CALIFORNIA - BERKELEY 2173
 A ROSAT-HRI IMAGE OF THE CYGNUS LOOP
 06/17/1997 - 06/30/1998 FY99: -\$2 Total: \$8,098
Prin. Invest.: J R GRAHAM
Tech. Officer: GSFC/R PETRE
 CASE Category: 11 - ASTRONOMY

NAG 5 4790 UNIVERSITY OF CALIFORNIA - BERKELEY 2174
 A SEARCH FOR NONTHERMAL X-RAY EMISSION FROM RADIO
 06/17/1997 - 06/30/2000 FY99: \$0 Total: \$22,700
Prin. Invest.: J ARONS
Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 4865 UNIVERSITY OF CALIFORNIA - BERKELEY 2175
 A HARD X-RAY SURVEY OF RADIO-LOUD AGNS
 07/08/1997 - 06/30/1998 FY99: \$0 Total: \$7,310
Prin. Invest.: A V FILIPPENKO
Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 4882 UNIVERSITY OF CALIFORNIA - BERKELEY 2176
 TOO OBSERVATIONS OF SOFT GAMMA REPEATERS
 07/15/1997 - 07/14/1998 FY99: \$0 Total: \$5,000
Prin. Invest.: K HURLEY
Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 4884 UNIVERSITY OF CALIFORNIA - BERKELEY 2177
 PAH EMISSION BANDS IN SELECTED PNE
 07/28/1997 - 07/31/2000 FY99: \$0 Total: \$75,000
Prin. Invest.: M COHEN
Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 4898 UNIVERSITY OF CALIFORNIA - BERKELEY 2178
 KINETIC ANALYSIS OF LANGMUIR WAVE PACKETS IN THE E
 06/20/1997 - 06/30/2000 FY99: \$42,667 Total: \$126,000
Prin. Invest.: D E ERGUN
Tech. Officer: GSFC/D EVANS
 CASE Category: 13 - PHYSICS

NAG 5 4899 UNIVERSITY OF CALIFORNIA - BERKELEY 2179
 THE FORMATION AND MAINTENANCE OF THE ZONAL WINDS O
 06/20/1997 - 04/30/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: D S MARCUS
Tech. Officer: GSFC/S HOWARD
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4979 UNIVERSITY OF CALIFORNIA - BERKELEY 2180
 MARS/TITAN/MOON SOLAR WIND INTERACTIONS
 07/09/1997 - 07/14/2000 FY99: \$0 Total: \$50,000
Prin. Invest.: D G LUHMANN
Tech. Officer: GSFC/S HOWARD
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4992 UNIVERSITY OF CALIFORNIA - BERKELEY 2181
 HISTORICAL STUDIES ON EXTRATERRESTRIAL MATERIALS
 06/27/1997 - 12/31/1999 FY99: \$83,000 Total: \$358,000
Prin. Invest.: D NISHIZUMI
Tech. Officer: GSFC/J F BOYCE
CASE Category: 12 - CHEMISTRY

NAG 5 5092 UNIVERSITY OF CALIFORNIA - BERKELEY 2182
 STUDY OF ULTRAHEAVY COSMIC RAYS WITH HNC ON THE RUSSIAN SPACE STATION MIR
 11/14/1996 - 10/31/1999 FY99: \$0 Total: \$220,000
Prin. Invest.: E F FRANCE
Tech. Officer: GSFC/M C NEEDLEMAN, GSFC/E A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5102 UNIVERSITY OF CALIFORNIA - BERKELEY 2183
 ASTROPHYSICAL GAMMA-RAY SPECTROSCOPY WITH THE HIGH RESOLUTION GAMMA-RAY (HIREGS)
 02/11/1997 - 10/31/1999 FY99: \$188,000 Total: \$1,492,600
Prin. Invest.: R W LIN
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5107 UNIVERSITY OF CALIFORNIA - BERKELEY 2184
 ECCO: THE EXTREMELY HEAVY COSMIC RAY COMPOSITION OBSERVER
 04/02/1997 - 09/30/1999 FY99: \$0 Total: \$200,000
Prin. Invest.: A J WESTPHAL
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5132 UNIVERSITY OF CALIFORNIA - BERKELEY 2185
 HIGH PERFORMANCE MICROCHANNEL PLATE DETECTOR TECHNOLOGIES FOR SOFT X-RAY ASTROPHYSICS
 03/13/1997 - 03/31/1998 FY99: -\$21 Total: \$49,979
Prin. Invest.: O SIEGMUND
Tech. Officer: GSFC/B FLOWERS
CASE Category: 13 - PHYSICS

NAG 5 5146 UNIVERSITY OF CALIFORNIA - BERKELEY 2186
 DEVELOPMENT OF GAS MICROSTRUCTURE DETECTORS (GMSD) FOR GAMMA-RAY TELESCOPES
 07/02/1997 - 11/30/1999 FY99: \$147,000 Total: \$248,130
Prin. Invest.: C HAILEY
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5197 UNIVERSITY OF CALIFORNIA - BERKELEY 2187
 PECASE PROGRAM FUNDING FOR THE FIRST YEAR OF RESEARCH; SELECTED
 05/21/1998 - 05/31/2000 FY99: \$0 Total: \$100,000
Prin. Invest.: M V HURWITZ
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5213 UNIVERSITY OF CALIFORNIA - BERKELEY 2188
 FUNDING FOR PHASE A OF THE CHIPS PROJECT P. I. - DR. M HURWITZ
 10/08/1998 - 10/31/2003 FY99: \$1,834,422 Total: \$1,834,422
Prin. Invest.: M HURWITZ
Tech. Officer: GSFC/D PIERCE
CASE Category: 13 - PHYSICS

NAG 5 5231 UNIVERSITY OF CALIFORNIA - BERKELEY 2189
 TECHNOLOGY DEVELOPMENT FOR THE EXTREMELY-HEAVY GALACTIC COSMIC-RAY COMPOSITION OBSERVER (ECCO)
 05/17/1999 - 05/10/2004 FY99: \$321,000 Total: \$321,000
Prin. Invest.: A J WESTPHAL
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6052 UNIVERSITY OF CALIFORNIA - BERKELEY 2190
 MODERN STATISTICAL METHODS FOR HELIOSEISMIC SPECTR
 07/28/1997 - 06/30/1998 FY99: \$0 Total: \$49,800
Prin. Invest.: D STARK
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6103 UNIVERSITY OF CALIFORNIA - BERKELEY 2191
 NEW DIRECTIONS IN COMETARY SPECTROSCOPY
 07/24/1997 - 07/31/2000 FY99: \$30,000 Total: \$83,000
Prin. Invest.: D SPINRAD
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAG 5 6106 UNIVERSITY OF CALIFORNIA - BERKELEY 2192
 LOW-COST MECHANICAL CRYOGENIC COOLERS FOR GERMANIUM SUB-ORBITAL SOLAR MISSIONS
 07/24/1997 - 06/30/1998 FY99: \$0 Total: \$50,000
Prin. Invest.: D LIN
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6128 UNIVERSITY OF CALIFORNIA - BERKELEY 2193
 THE INTERRELATION OF SOFT AND HARD X-RAY EMISSION
 08/04/1997 - 06/30/1999 FY99: \$23,333 Total: \$120,500
Prin. Invest.: D FISHER
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6262 UNIVERSITY OF CALIFORNIA - BERKELEY 2194
 RELATIONSHIP TO BURSTY BULK FLOW EVENTS AND SUBSTO
 08/21/1997 - 03/31/1999 FY99: \$0 Total: \$35,000
Prin. Invest.: D ANGELOPOULOS
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6347 UNIVERSITY OF CALIFORNIA - BERKELEY 2195
 TRANSDUCTION OF THE GRAVITY SIGNAL IN MAIZE ROOTS
 09/23/1997 - 09/30/1998 FY99: \$0 Total: \$77,450
Prin. Invest.: D FELDMAN
Tech. Officer: GSFC/T K SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6515 UNIVERSITY OF CALIFORNIA - BERKELEY 2196
 CENTER FOR ASSESSMENT AND MONITORING OF FOREST AND ENVIRONMENTAL RESOURCES (CAMFER) AND THE EARTH R
 10/23/1997 - 09/30/1999 FY99: \$0 Total: \$500,000
Prin. Invest.: D BRIMHALL
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6551 UNIVERSITY OF CALIFORNIA - BERKELEY 2197
 ORIGIN AND EVOLUTION OF WHITE DWARF STARS: THE EARLY YEARS
 (LTS)A
 11/21/1997 - 11/30/1999 FY99: \$96,400 Total: \$180,700
 Prin. Invest.: S VENNES
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 6552 UNIVERSITY OF CALIFORNIA - BERKELEY 2198
 FOREGROUND ANALYSIS & REMOVAL FOR FUTURE CMB EXPERIMENTS
 (LTS)A
 11/21/1997 - 11/30/2000 FY99: \$210,100 Total: \$317,100
 Prin. Invest.: G F SMOOT
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 6587 UNIVERSITY OF CALIFORNIA - BERKELEY 2199
 END-TO-END PROBLEMS IN EOSDIS
 11/07/1997 - 06/30/1999 FY99: \$0 Total: \$642,300
 Prin. Invest.: M STONEBRAKER
 Tech. Officer: GSFC/R KRIEDER
 CASE Category: 22 - COMPUTER SCIENCE

NAG 5 6593 UNIVERSITY OF CALIFORNIA - BERKELEY 2200
 LAND-USE AND LAND-COVER CHANGE IN SONORA, MEXICO
 11/18/1997 - 11/14/2000 FY99: \$0 Total: \$192,169
 Prin. Invest.: T L BENNING
 Tech. Officer: GSFC/A C JANETOS
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6684 UNIVERSITY OF CALIFORNIA - BERKELEY 2201
 CHALLENGES OF THE DIFFUSION THEORY IN HOT WHITE DWARFS
 11/25/1997 - 11/30/1998 FY99: \$0 Total: \$11,200
 Prin. Invest.: P CHAYER
 Tech. Officer: GSFC/R J OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 6705 UNIVERSITY OF CALIFORNIA - BERKELEY 2202
 EUV SPECTROSCOPY OF ULTRAMASSIVE WHITE DWARFS
 12/16/1997 - 12/14/1998 FY99: \$0 Total: \$12,160
 Prin. Invest.: J DUPUIS
 Tech. Officer: GSFC/R OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 6706 UNIVERSITY OF CALIFORNIA - BERKELEY 2203
 THE DISTRIBUTION AND VARIABILITY OF LOCAL INTERSTELLAR HE IN THE
 HELIOSPHERICOSPHERE
 12/16/1997 - 12/14/1999 FY99: \$0 Total: \$11,520
 Prin. Invest.: B FLYNN
 Tech. Officer: GSFC/R OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 6707 UNIVERSITY OF CALIFORNIA - BERKELEY 2204
 HIDDEN COMPANIONS TO EARLY TYPE STARS
 12/18/1997 - 12/14/1998 FY99: \$0 Total: \$12,160
 Prin. Invest.: S VENNES
 Tech. Officer: GSFC/R J OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 6742 UNIVERSITY OF CALIFORNIA - BERKELEY 2205
 LAMBDA SCO:A 15 MILLION YEAR OLD B21V STAR WITH WD COMPAN-
 ION?A SCAN WITH THE EUVE DS TEL
 12/19/1997 - 12/31/1998 FY99: \$0 Total: \$20,160
 Prin. Invest.: T BERGHOFER
 Tech. Officer: GSFC/R OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 6748 UNIVERSITY OF CALIFORNIA - BERKELEY 2206
 DETERMINATION OF THE PROPERTIES OF HE IN THE LOCAL INTERSTEL-
 LAR MEDIUM FROM THE EUVE ALL-SKY SURVEY
 01/12/1998 - 12/31/1999 FY99: \$35,400 Total: \$65,555
 Prin. Invest.: B FLYNN
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 6870 UNIVERSITY OF CALIFORNIA - BERKELEY 2207
 A STUDY OF MEV TERRESTRIAL X-RAY BURSTS WITH AN ARTIFICIAL LONG
 DURATION BALLOON FLIGHT AND ISTP
 01/13/1998 - 01/31/2000 FY99: \$30,000 Total: \$130,000
 Prin. Invest.: R LIN
 Tech. Officer: GSFC/L ZANETTI
 CASE Category: 13 - PHYSICS

NAG 5 6890 UNIVERSITY OF CALIFORNIA - BERKELEY 2208
 VLA MONITORING OF JUPITER IN 3-D AT $\lambda = 6-90$ CM: 1981 - 1996
 01/21/1998 - 12/31/1999 FY99: \$64,182 Total: \$128,084
 Prin. Invest.: I DE PATER
 Tech. Officer: GSFC/T MORGAN
 CASE Category: 11 - ASTRONOMY

NAG 5 6895 UNIVERSITY OF CALIFORNIA - BERKELEY 2209
 COMPARATIVE ANALYSIS OF MGS AND PVO OBSERVATIONS FROM AN
 AERONAUTICAL PERSPECTIVE
 01/16/1998 - 03/31/2000 FY99: \$0 Total: \$49,300
 Prin. Invest.: J LUHMANN
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 6919 UNIVERSITY OF CALIFORNIA - BERKELEY 2210
 X-RAY EMISSION FROM WHITE DWARF SYMBIOTIC BINARIES ____ ASCA
 PROPOSAL
 01/28/1998 - 01/31/1999 FY99: \$0 Total: \$17,262
 Prin. Invest.: L BILDSTEN
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 6928 UNIVERSITY OF CALIFORNIA - BERKELEY 2211
 ANALYSIS OF DATA FROM THE 3-D PLASMA AND ENERGETIC PARTICLE
 EXPERIMENT ON THE GGS WIND SPACECRAFT
 02/04/1998 - 01/31/2000 FY99: \$860,000 Total: \$1,720,000
 Prin. Invest.: R P LIN
 Tech. Officer: GSFC/K OBILVIE
 CASE Category: 13 - PHYSICS

NAG 5 6932 UNIVERSITY OF CALIFORNIA - BERKELEY 2212
 GRANT
 01/29/1998 - 01/31/2000 FY99: \$27,000 Total: \$87,000
 Prin. Invest.: C W CARLSON
 Tech. Officer: GSFC/M HESSE
 CASE Category: 13 - PHYSICS

NAG 5 6985 UNIVERSITY OF CALIFORNIA - BERKELEY 2213
 CHARACTERIZATION AND NUMERICAL SIMULATION OF FAST SOLITARY
 WAVES IN THE AURORAL IONOSPHERE
 02/10/1998 - 03/31/2000 FY99: \$73,300 Total: \$143,700
Prin. Invest.: R E ERGUN
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7018 UNIVERSITY OF CALIFORNIA - BERKELEY 2214
 WIRE: A DEEP MULTI-WAVELENGTH SURVEY OF THE GALACTIC PLANE
 02/18/1998 - 02/14/2000 FY99: \$20,000 Total: \$40,000
Prin. Invest.: M COHEN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7025 UNIVERSITY OF CALIFORNIA - BERKELEY 2215
 A RAPID-RESPONSE SEARCH FOR GAMMA-RAY BURST OPTICAL EMISSION
 02/18/1998 - 02/14/1999 FY99: \$0 Total: \$38,200
Prin. Invest.: S PERLMUTTER, NONE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7063 UNIVERSITY OF CALIFORNIA - BERKELEY 2216
 DEVELOPMENT OF CDZNTe DETECTORS FOR LOW-ENERGY GAMMA-RAY
 ASTRONOMY
 02/26/1998 - 01/31/1999 FY99: \$0 Total: \$31,600
Prin. Invest.: K C HURLEY
Tech. Officer: GSFC/R A BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7173 UNIVERSITY OF CALIFORNIA - BERKELEY 2217
 AN ISOTOPIC APPROACH FOR DETERMINING THE INDUSTRIAL FRACTION
 OF THE TOTAL CH3BR SOURCE TO THE A
 03/24/1998 - 10/28/2001 FY99: \$70,000 Total: \$140,000
Prin. Invest.: A GOLDSTEIN, NONE
Tech. Officer: GSFC/P DECOLA
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7174 UNIVERSITY OF CALIFORNIA - BERKELEY 2218
 IMPLEMENTATION AND DEPLOYMENT OF A GENERALIZED SEARCH TREE
 FOR MANAGING MULTIPLE DATA TYPES
 04/06/1998 - 09/30/2000 FY99: \$0 Total: \$193,868
Prin. Invest.: J M HELLERSTEIN
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7181 UNIVERSITY OF CALIFORNIA - BERKELEY 2219
 OBSERVATIONS OF THE LUNAR ATMOSPHERE
 03/16/1998 - 04/30/1999 FY99: \$0 Total: \$27,000
Prin. Invest.: B FLYNN
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 7188 UNIVERSITY OF CALIFORNIA - BERKELEY 2220
 RESTORATION OF ISEE-3/ICE X-RAY DATA
 03/26/1998 - 06/30/1999 FY99: \$0 Total: \$44,100
Prin. Invest.: G H FISHER
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 7231 UNIVERSITY OF CALIFORNIA - BERKELEY 2221
 SEARCH FOR EUV EMISSION FROM NEUTRON STARS
 04/09/1998 - 04/14/1999 FY99: \$0 Total: \$10,560
Prin. Invest.: S BOWYER
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 7265 UNIVERSITY OF CALIFORNIA - BERKELEY 2222
 GALACTIC BLACK HOLES AND POSITRON ANNIHILATION RADIATION
 04/29/1998 - 11/30/1999 FY99: \$34,000 Total: \$66,000
Prin. Invest.: D M SMITH
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7274 UNIVERSITY OF CALIFORNIA - BERKELEY 2223
 LOTIS: A SIMULTANEOUS GAMMA-RAY BURST OPTICAL COUNTERPART
 SEARCH EXPERIMENT
 04/16/1998 - 04/30/1999 FY99: \$0 Total: \$2,000
Prin. Invest.: K C HURLEY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7311 UNIVERSITY OF CALIFORNIA - BERKELEY 2224
 A STUDY OF CIRCUMSTELLAR GAS IN BETA PICTURE LIKE PROTOPLANETARY
 DISKS
 04/22/1998 - 04/30/2001 FY99: \$0 Total: \$30,000
Prin. Invest.: B Y WELSH
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7343 UNIVERSITY OF CALIFORNIA - BERKELEY 2225
 IDENTIFYING SGR1900-14, THE THIRD SOFT GAMMA REPEATER, WITH
 ASCA
 05/07/1998 - 05/14/2000 FY99: \$0 Total: \$20,400
Prin. Invest.: K C HURLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7351 UNIVERSITY OF CALIFORNIA - BERKELEY 2226
 AN OBSERVATION TEST OF TRANSITION REGION LINES AS A PRESSURE
 GAUGE
 04/28/1998 - 04/30/1999 FY99: \$0 Total: \$41,000
Prin. Invest.: O SIEGMUND
Tech. Officer: GSFC/A POLAND
CASE Category: 13 - PHYSICS

NAG 5 7353 UNIVERSITY OF CALIFORNIA - BERKELEY 2227
 INTENSITY DISTRIBUTION OF THE SOLAR TRANSITION REGION
 04/28/1998 - 04/30/1999 FY99: \$0 Total: \$39,200
Prin. Invest.: G FISHER
Tech. Officer: GSFC/A POLAND
CASE Category: 13 - PHYSICS

NAG 5 7356 UNIVERSITY OF CALIFORNIA - BERKELEY 2228
 EXTENSION OF "SCIENCE INFORMATION INFRASTRUCTURE" GRANT
 NAG5-2875 CONTINUED DEVELOPMENT AND DI
 05/21/1998 - 01/31/2000 FY99: \$150,000 Total: \$300,000
Prin. Invest.: I HAWKINS, NONE
Tech. Officer: GSFC/A F HASLER
CASE Category: 11 - ASTRONOMY

NAG 5 7457 UNIVERSITY OF CALIFORNIA - BERKELEY 2229
 CARBON IN THE UNIVERSE: PAHS AND CLUSTERS
 09/18/1998 - 06/30/2000 FY99: \$163,333 Total: \$270,000
 Prin. Invest.: R SAYKALLY
 Tech. Officer: GSFC/M MEYER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7522 UNIVERSITY OF CALIFORNIA - BERKELEY 2230
 MONITORING OBSERVATIONS OF BLACK HOLE CANDIDATES 1 E
 1740.7-2942 ANDGRS 1758-258
 06/02/1998 - 05/31/1999 FY99: \$0 Total: \$16,146
 Prin. Invest.: D M SMITH
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7580 UNIVERSITY OF CALIFORNIA - BERKELEY 2231
 "SEISMIC HAZARD ASSESSMENT OF THE HAYWARD FAULT, C A, FROM
 GPS AND INSAR MEASUREMENT" (SE
 08/04/1998 - 01/31/2000 FY99: \$75,000 Total: \$112,000
 Prin. Invest.: R BURGMANN, NONE
 Tech. Officer: GSFC/H V FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7615 UNIVERSITY OF CALIFORNIA - BERKELEY 2232
 ADVANCE THE STATE OF THE ART IN MICROCHANNEL PLATE TECHNOL-
 OGY TO SIGNIFICANTLY IMPROVE DETEC
 08/24/1998 - 08/31/2000 FY99: \$0 Total: \$135,247
 Prin. Invest.: D SIEGMUND
 Tech. Officer: GSFC/F S HERRERO
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7755 UNIVERSITY OF CALIFORNIA - BERKELEY 2233
 DIRECT IMMERSION PROCESS FOR MCP PERFORMANCE IMPROVEMENTS
 12/08/1998 - 12/31/1999 FY99: \$100,000 Total: \$100,000
 Prin. Invest.: D EDELSTEIN
 Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 7766 UNIVERSITY OF CALIFORNIA - BERKELEY 2234
 ANALYSIS OF ROSAT AND SAX DATA ON COSMIC GAMMA-RAY BURSTS_
 ADP98
 01/06/1999 - 01/14/2000 FY99: \$29,500 Total: \$29,500
 Prin. Invest.: K C HURLEY
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7810 UNIVERSITY OF CALIFORNIA - BERKELEY 2235
 MAINTAINING AND EXPANDING THE 3RD INTERPLANETARY NETWORK
 11/10/1998 - 01/14/2000 FY99: \$20,000 Total: \$20,000
 Prin. Invest.: K C HURLEY
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7833 UNIVERSITY OF CALIFORNIA - BERKELEY 2236
 STUDIES OF DUST EMISSION AS MEASURED BY DIRBE AND IRAS ADP 98
 12/14/1998 - 12/14/1999 FY99: \$61,913 Total: \$61,913
 Prin. Invest.: M DAVIS
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7890 UNIVERSITY OF CALIFORNIA - BERKELEY 2237
 CYCLE 8 CONTINUATION OF THE SEARCH FOR GRAVITATIONAL LENSING
 IN GRBS
 12/02/1998 - 01/14/2000 FY99: \$2,000 Total: \$2,000
 Prin. Invest.: K C HURLEY
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7928 UNIVERSITY OF CALIFORNIA - BERKELEY 2238
 CORONAL HEATING IN ACTIVE REGIONS
 12/14/1998 - 12/14/1999 FY99: \$70,000 Total: \$70,000
 Prin. Invest.: G H FISHER
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7929 UNIVERSITY OF CALIFORNIA - BERKELEY 2239
 INFLUENCE OF NONEQUILIBRIUM IONIZATION ON TEMPERATURE AND
 EMISSION MEASURE DIAGNOSTICS
 12/14/1998 - 12/14/1999 FY99: \$57,100 Total: \$57,100
 Prin. Invest.: D T WOODS
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7936 UNIVERSITY OF CALIFORNIA - BERKELEY 2240
 PROBING THE MORPHOLOGY, DYNAMICS AND INTERFACES OF THE
 INTERSTELLAR MEDIUM (LTSA 98)
 12/23/1998 - 12/31/1999 FY99: \$73,000 Total: \$73,000
 Prin. Invest.: M COHEN
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7951 UNIVERSITY OF CALIFORNIA - BERKELEY 2241
 CMES AND SOLAR MAGNETIC FIELD EVOLUTION: A SOHO G I PROPOSAL
 12/21/1998 - 12/21/1999 FY99: \$84,600 Total: \$84,600
 Prin. Invest.: J G LUHMANN
 Tech. Officer: GSFC/J LING
 CASE Category: 11 - ASTRONOMY

NAG 5 7961 UNIVERSITY OF CALIFORNIA - BERKELEY 2242
 A MULTI-INSTRUMENT INVESTIGATION OF WAVE AND PARTICLE PRO-
 CESSES IN THE SOLARWIND AND AT THE BOW S
 12/23/1998 - 12/14/1999 FY99: \$62,600 Total: \$62,600
 Prin. Invest.: S D BALE
 Tech. Officer: GSFC/J LING
 CASE Category: 11 - ASTRONOMY

NAG 5 8078 UNIVERSITY OF CALIFORNIA - BERKELEY 2243
 016LYSIS OF DATA FROM ELECTRIC FIELD EXPERIMENT ON POLAR11
 01/22/1999 - 12/31/1999 FY99: \$639,000 Total: \$639,000
 Prin. Invest.: F MOZER
 Tech. Officer: GSFC/R HOFFMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8098 UNIVERSITY OF CALIFORNIA - BERKELEY 2244
 THE MAGNETIC FIELDS OF T TAURI STARS
 02/04/1999 - 02/14/2000 FY99: \$40,000 Total: \$40,000
 Prin. Invest.: C M JOHNS-KRULL
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8206 UNIVERSITY OF CALIFORNIA - BERKELEY 2245
 RXTE SEARCH FOR LONG-LIVED AFTERFLOWS FROM GAMMA RAY
 BURSTS
 02/11/1999 - 02/14/2000 FY99: \$4,125 Total: \$4,125
Prin. Invest.: K C HURLEY, NONE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 8209 UNIVERSITY OF CALIFORNIA - BERKELEY 2246
 ACCRETION ONTO T TAURI STARS (ADP98)
 02/25/1999 - 02/29/2000 FY99: \$60,900 Total: \$60,900
Prin. Invest.: C M JOHNS-KRULL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8262 UNIVERSITY OF CALIFORNIA - BERKELEY 2247
 THE PRIMORDIAL UNIVERSE
 02/18/1999 - 08/31/2000 FY99: \$24,696 Total: \$24,696
Prin. Invest.: J SILK
Tech. Officer: GSFC/H SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 8410 UNIVERSITY OF CALIFORNIA - BERKELEY 2248
 ANNUAL MEETING OF THE NATIONAL CONFERENCE OF BLACK PHYSICS
 STUDENTS
 03/15/1999 - 02/29/2000 FY99: \$83,000 Total: \$83,000
Prin. Invest.: G BASRI
Tech. Officer: GSFC/D MENCHAN
CASE Category: 13 - PHYSICS

NAG 5 8419 UNIVERSITY OF CALIFORNIA - BERKELEY 2249
 THEORETICAL STUDIES OF THERMONUCLEAR PROCESSING AND NONRA-
 DIAL OSCILLATIONS OF ACCRETING NEUTRON STARS
 03/25/1999 - 06/30/1999 FY99: \$0 Total: \$0
Prin. Invest.: L BILDSTEN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8435 UNIVERSITY OF CALIFORNIA - BERKELEY 2250
 TIMING STUDIES OF TWO CANDIDATE MAGNETIC SYMBIOTIC BINARIES
 04/02/1999 - 03/31/2000 FY99: \$9,314 Total: \$9,314
Prin. Invest.: L BILDSTEN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 8468 UNIVERSITY OF CALIFORNIA - BERKELEY 2251
 THE PHYSICS OF ACTIVE REGIONS
 05/04/1999 - 04/30/2000 FY99: \$117,700 Total: \$117,700
Prin. Invest.: G H FISHER
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 8489 UNIVERSITY OF CALIFORNIA - BERKELEY 2252
 IMPLEMENTATION OF ALGORITHMS FOR HIGH SPEED AUTONOMOUS CCD
 DATA REDUCTION
 05/03/1999 - 04/14/2000 FY99: \$31,400 Total: \$31,400
Prin. Invest.: D L BUZASI
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 5 8510 UNIVERSITY OF CALIFORNIA - BERKELEY 2253
 EVALUATING MODEL PREDICTIONS OF CO2 & WATER VAPOR EXCHANGE
 WITH FLUX MEASUREMENTS IN A PONDEROSA
 06/02/1999 - 06/30/2000 FY99: \$39,520 Total: \$39,520
Prin. Invest.: D BALDOCCHI
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8667 UNIVERSITY OF CALIFORNIA - BERKELEY 2254
 AN ADVANCED PHOTON COUNTING UV IMAGING DETECTOR
 07/08/1999 - 07/14/2000 FY99: \$143,000 Total: \$143,000
Prin. Invest.: O H SIEGMUND
Tech. Officer: GSFC/G MUCKLOW
CASE Category: 11 - ASTRONOMY

NAG 5 8737 UNIVERSITY OF CALIFORNIA - BERKELEY 2255
 THE ROLE OF MULTI-SCALE LAND SURFACE HETEROGENEITY IN PRECI-
 PITATION RECYCLING AND LAND ATMOSPHERE
 08/17/1999 - 08/14/2000 FY99: \$40,000 Total: \$40,000
Prin. Invest.: X LIANG
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8753 UNIVERSITY OF CALIFORNIA - BERKELEY 2256
 FLUXNET: UNIFYING A GLOBAL ARRAY OF TOWER FLUX NETWORKS FOR
 VALIDATING EOS TERRESTRIAL CARBON, WATER
 08/12/1999 - 10/31/1999 FY99: \$75,000 Total: \$75,000
Prin. Invest.: D BALDOCCHI, NONE
Tech. Officer: GSFC/D STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 6 10 UNIVERSITY OF CALIFORNIA - BERKELEY 2257
 SOUNDING ROCKET RESEARCH PROGRAM
 11/01/1980 - 12/31/1999 FY99: \$0 Total: \$3,619,476
Prin. Invest.: C W CARLSON, F S MOZER, K A ANDERSON
Tech. Officer: GSFC/W B JOHNSON, GSFC/R H PLESS
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1432 UNIVERSITY OF CALIFORNIA - BERKELEY 2258
 R/S SUPERFLUID GYROSCOPES FOR SPACE
 03/02/1998 - 01/31/2003 FY99: \$100,000 Total: \$187,000
Prin. Invest.: R E PACKARD
Tech. Officer: MSFC/D HUBBARD
CASE Category: 13 - PHYSICS

NAG 8 1458 UNIVERSITY OF CALIFORNIA - BERKELEY 2259
 R/S EXPLOITING THE TEMPERATURE DEPENDENCE OF MAGNETIC SUS-
 CEPTIBILITY TO CONTROL CONVECTION
 02/15/1998 - 01/31/2002 FY99: \$87,000 Total: \$147,000
Prin. Invest.: J W EVANS, F SZOFRAN
Tech. Officer: MSFC/P M DOTY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 1051 UNIVERSITY OF CALIFORNIA - BERKELEY 2260
 GENESIS DISCOVERY MISSION
 08/19/1998 - 07/09/2001 FY99: \$42,600 Total: \$68,600
Prin. Invest.: K NISHIZUMI
Tech. Officer: JSC/K E CYR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 2029 UNIVERSITY OF CALIFORNIA - BERKELEY 2261
 INSTRUMENT DEVELOPMENT AND SCIENTIFIC APPLICATIONS OF THE
 EXTREME ULTRAVIOLET IMAGING TELESCOPE ARR
 04/02/1990 - 09/30/1998 FY99: \$0 Total: \$379,000
Prin. Invest.: O SIEGMUND
Tech. Officer: HQ/G CLAYTON
CASE Category: 11 - ASTRONOMY

NAGW 2478 UNIVERSITY OF CALIFORNIA - BERKELEY 2262
 MULTI WAVELENGTH STUDIES OF HOT DA WHITE DWARFS
 05/09/1991 - 09/30/1997 FY99: -\$1,420 Total: \$425,580
Prin. Invest.: D S FINLEY
Tech. Officer: HQ/G S KUTTER, HQ/G R RIEGLER
CASE Category: 11 - ASTRONOMY

NAGW 2883 UNIVERSITY OF CALIFORNIA - BERKELEY 2263
 SOME NEW DIRECTIONS IN COMETARY SPECTROSCOPY
 02/13/1992 - 07/31/1998 FY99: \$0 Total: \$260,945
Prin. Invest.: H SPINRAD
Tech. Officer: HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAGW 3823 UNIVERSITY OF CALIFORNIA - BERKELEY 2264
 NAGW-3823/UNIV CALIF BERKELEY; ADVANCED DELAY LINE DETECTOR
 TECHNOLOGY; 12/1/93 NEW AWARD
 11/30/1993 - 09/30/1997 FY99: -\$18 Total: \$254,982
Prin. Invest.: M L LAMPTON
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAS 1 99053 UNIVERSITY OF CALIFORNIA - BERKELEY 2265
 NEXT GENERATION TECHNOLOGIES FOR THE IN SITU DETECTION OF NOX
 RADICALS AND RESERVOIRS FROM AIRCRAFT
 02/10/1999 - 02/09/2000 FY99: \$275,000 Total: \$275,000
Prin. Invest.: R COHEN
Tech. Officer: LARC/J HILL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 30180 UNIVERSITY OF CALIFORNIA - BERKELEY 2266
 EXTREME ULTRAVIOLET EXPLORER MISSION INVESTIGATION
 07/17/1987 - 02/28/1999 FY99: \$0 Total: \$17,210,982
Prin. Invest.: D HUNTEN
Tech. Officer: GSFC/A SMITH
CASE Category: 11 - ASTRONOMY

NAS 5 30801 UNIVERSITY OF CALIFORNIA - BERKELEY 2267
 ISTP PROJECT'S ELECTRIC FIELDS & WAVES
 07/02/1990 - 10/17/2000 FY99: \$666,700 Total: \$6,450,700
Prin. Invest.: F MOZER
Tech. Officer: GSFC/L CHRISTENSEN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31429 UNIVERSITY OF CALIFORNIA - BERKELEY 2268
 SYSTEM DESIGN PHASE OF REFLECTION GRATING ASSEMBLY
 12/28/1990 - 09/30/2000 FY99: \$555,215 Total: \$13,477,681
Prin. Invest.: S KAHN
Tech. Officer: GSFC/R DONNELLY
CASE Category: 41 - AERONAUTICAL ENGR

NAS 5 32698 UNIVERSITY OF CALIFORNIA - BERKELEY 2269
 STUDY "TOOLS FOR PHOTON EVENT DATA"
 09/28/1994 - 08/31/1998 FY99: \$0 Total: \$140,000
Prin. Invest.: C CHRISTIAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAS 5 32795 UNIVERSITY OF CALIFORNIA - BERKELEY 2270
 RESEARCH STUDY - ALEXIS DATA CENTER
 06/16/1995 - 06/15/1998 FY99: \$0 Total: \$158,079
Prin. Invest.: H W SIEGMUND
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAS 5 96092 UNIVERSITY OF CALIFORNIA - BERKELEY 2271
 EOS-BIOSPHERE ATMOSPHERIC INTERACTIONS STUDY
 10/11/1996 - 12/31/1999 FY99: \$160,000 Total: \$325,000
Prin. Invest.: P MATSON
Tech. Officer: GSFC/P SELLERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 98033 UNIVERSITY OF CALIFORNIA - BERKELEY 2272
 PHASE A CONCEPT STUDY FOR HESSI INVESTIGATION
 11/19/1997 - 12/31/1999 FY99: \$18,522,000 Total: \$29,377,000
Prin. Invest.: R P LIN
Tech. Officer: GSFC/F SNOW
CASE Category: 11 - ASTRONOMY

NAS 5 98171 UNIVERSITY OF CALIFORNIA - BERKELEY 2273
 NGST INTEGRATED SCIENCE INSTRUMENT MODULE (ISIM) CONCEPT
 STUDY
 07/02/1998 - 12/31/1999 FY99: \$0 Total: \$25,100
Prin. Invest.: J R GRAHAM, NONE
Tech. Officer: GSFC/L R PURVES
CASE Category: 11 - ASTRONOMY

NCC 2 142 UNIVERSITY OF CALIFORNIA - BERKELEY 2274
 DETECTION IDENTIFICATION AND PRECISE LOCATION OF INFRARED
 OBJECTS
 07/01/1981 - 05/31/2000 FY99: \$0 Total: \$1,439,572
Prin. Invest.: C E HEILES, M COHEN
Tech. Officer: ARC/D GOORVITCH
CASE Category: 11 - ASTRONOMY

NCC 2 548 UNIVERSITY OF CALIFORNIA - BERKELEY 2275
 STAR FORMATION AND THE EVOLUTION OF ELLIPTICAL GALAXIES
 07/01/1988 - 12/31/1998 FY99: \$36,276 Total: \$2,714,019
Prin. Invest.: F H SHU
Tech. Officer: ARC/D J HOLLENBACH, ARC/P CASSER
CASE Category: 11 - ASTRONOMY

NCC 2 757 UNIVERSITY OF CALIFORNIA - BERKELEY 2276
 TELEPRESENCE & ITS RELATIONSHIP TO PERFORMANCE
 06/02/1992 - 01/31/1999 FY99: \$0 Total: \$114,234
Prin. Invest.: L STARK
Tech. Officer: ARC/R B WELCH
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 909 UNIVERSITY OF CALIFORNIA - BERKELEY 2277
 HUMAN PERFORMANCE IN COORDINATED HAPTIC-VISUAL VIRTUAL ENVIRONMENTS
 06/26/1995 - 12/31/1999 FY99: \$233,364 Total: \$984,336
Prin. Invest.: H KAZERAONI
Tech. Officer: ARC/S R ELLIS
CASE Category: 46 - MECHANICAL ENGR

NCC 2 947 UNIVERSITY OF CALIFORNIA - BERKELEY 2278
 TECHNOLOGY EXPERIMENT DEMONSTRATIONS ON THE RUVE FLIGHT TEST BED
 04/15/1996 - 04/30/1999 FY99: \$0 Total: \$100,000
Prin. Invest.: R E MALINA
Tech. Officer: ARC/D J KORSMEYER
CASE Category: 21 - MATHEMATICS

NCC 2 949 UNIVERSITY OF CALIFORNIA - BERKELEY 2279
 HUMAN FACTORS IN MAN-VEHICLE RESEARCH
 04/15/1996 - 12/31/1998 FY99: \$0 Total: \$210,000
Prin. Invest.: L STARK
Tech. Officer: ARC/S R ELLIS
CASE Category: 49 - ENGINEERING, OTHER

NCC 2 966 UNIVERSITY OF CALIFORNIA - BERKELEY 2280
 VALIDATION OF NEW MILLENNIUM TECHNOLOGIES WITH THE EXTREME ULTRAVIOLET EXPLORER OBSERVATORY
 08/20/1996 - 06/30/1999 FY99: \$0 Total: \$300,000
Prin. Invest.: R F MALINA *Prin. Invest.:* NONE
Tech. Officer: ARC/D J KORSMEYER
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1080 UNIVERSITY OF CALIFORNIA - BERKELEY 2281
 THE CENTER FOR STAR FORMATION STUDIES
 01/25/1999 - 01/14/2000 FY99: \$285,820 Total: \$285,820
Prin. Invest.: F H SHU
Tech. Officer: ARC/D J HOLLENBACH, ARC/P CASSEN
CASE Category: 11 - ASTRONOMY

NCC 2 1125 UNIVERSITY OF CALIFORNIA - BERKELEY 2282
 THE EXTRACTION OF POINT SOURCES FROM THE NIRS SPECTROMETER ABOARD THE INFRARED TELESCOPE IN SPACE
 06/14/1999 - 05/31/2000 FY99: \$28,000 Total: \$28,000
Prin. Invest.: M COHEN
Tech. Officer: ARC/D GOORVITCH
CASE Category: 11 - ASTRONOMY

NCC 2 5192 UNIVERSITY OF CALIFORNIA - BERKELEY 2283
 INTERSTELLAR MOLECULES IN THE PROTOSOLAR NEBULA
 12/18/1996 - 10/31/1998 FY99: \$0 Total: \$80,000
Prin. Invest.: I DE PATER
Tech. Officer: ARC/D HOLLENBACH
CASE Category: 11 - ASTRONOMY

NCC 2 5195 UNIVERSITY OF CALIFORNIA - BERKELEY 2284
 DUST IN THE CLOUD AND INTERCLOUD PHASES OF THE INTERSTELLAR MEDIUM
 11/13/1996 - 10/31/1999 FY99: \$0 Total: \$80,000
Prin. Invest.: C F MCKEE
Tech. Officer: ARC/D HOLLENBACH
CASE Category: 11 - ASTRONOMY

NCC 2 5218 UNIVERSITY OF CALIFORNIA - BERKELEY 2285
 CALCULATION OF REACTING GAS FLOWS BY COMPUTATIONAL FLUID DYNAMICS CODE WITH SPACE APPLICATIONS
 05/22/1997 - 03/31/1999 FY99: \$15,000 Total: \$80,000
Prin. Invest.: M HOLT
Tech. Officer: ARC/M LOOMIS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5259 UNIVERSITY OF CALIFORNIA - BERKELEY 2286
 A STUDY OF THE BALLISTIC RANGE FOR AERODYNAMIC TESTING OF PLANETARY VEHICLES
 03/17/1998 - 06/30/1999 FY99: \$15,000 Total: \$40,000
Prin. Invest.: G CHAMPMAN
Tech. Officer: ARC/P F WERCINSKI
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5287 UNIVERSITY OF CALIFORNIA - BERKELEY 2287
 AUTOMATED SOFTWARE ENGINEERING FOR AUTONOMOUS DATA ANALYSIS UNDER CONSTRAINED RESOURCES
 08/10/1998 - 06/30/1999 FY99: \$54,984 Total: \$94,984
Prin. Invest.: R A NEWTON
Tech. Officer: ARC/LOWRY
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5289 UNIVERSITY OF CALIFORNIA - BERKELEY 2288
 THE EVOLUTION OF DUST IN THE MULTIPHASE INTERSTELLAR MEDIUM
 08/13/1998 - 12/31/1999 FY99: \$69,964 Total: \$92,707
Prin. Invest.: C F MCKEE
Tech. Officer: ARC/D J HOLLENBACH
CASE Category: 11 - ASTRONOMY

NCC 2 5334 UNIVERSITY OF CALIFORNIA - BERKELEY 2289
 A STUDY OF THE STATIC & DYNAMIC AERODYNAMICS CHARACTERISTICS OF BLUNT PLANETARY PROBES
 07/19/1999 - 12/31/1999 FY99: \$15,000 Total: \$15,000
Prin. Invest.: G T CHAPMAN, M BROWN, A RAMSEY
Tech. Officer: ARC/P F WERCINSKI, ARC/T C TAM
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 478 UNIVERSITY OF CALIFORNIA - BERKELEY 2290
 FLAMMABILITY DIAGRAMS OF COMBUSTIBLE MATERIALS IN MICROGRAVITY
 05/29/1996 - 05/31/2000 FY99: \$48,797 Total: \$177,308
Prin. Invest.: A C FERNANDEZ-PELLO
Tech. Officer: GRC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NCC 5 138 UNIVERSITY OF CALIFORNIA - BERKELEY 2291
 EXTENDED EUVE MISSION
 08/21/1996 - 09/30/2000 FY99: \$730,000 Total: \$7,814,582
Prin. Invest.: R MALINA
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NCC 5 253 UNIVERSITY OF CALIFORNIA - BERKELEY 2292
 THE SUN-EARTH CONNECTION EDUCATION FORUM
 10/30/1997 - 11/14/1999 FY99: \$0 Total: \$1,315,000
Prin. Invest.: I HAWKINS
Tech. Officer: GSFC/J THIEMAN
CASE Category: 13 - PHYSICS

NCC 5 352 UNIVERSITY OF CALIFORNIA - BERKELEY 2293
 SOIL BIOGEOCHEMISTRY OF CARBON, NUTRIENTS, & TRACE GASES IN
 THE AMAZON REGION OF BRAZIL: FIELD & MOD
 07/28/1998 - 07/31/2001 FY99: \$50,106 Total: \$136,782
Prin. Invest.: W SILVER
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30247 UNIVERSITY OF CALIFORNIA - BERKELEY 2294
 GLOBAL CHANGE FELLOWSHIP AWARD
 10/02/1994 - 08/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: C D'ANTONIO
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30259 UNIVERSITY OF CALIFORNIA - BERKELEY 2295
 GLOBAL CHANGE FELLOWSHIP AWARD
 10/02/1994 - 08/31/1998 FY99: -\$3 Total: \$65,997
Prin. Invest.: F S CHAPIN III
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30289 UNIVERSITY OF CALIFORNIA - BERKELEY 2296
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/20/1994 - 08/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: J HARTE
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30318 UNIVERSITY OF CALIFORNIA - BERKELEY 2297
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/31/1995 - 08/31/1998 FY99: -\$5,750 Total: \$38,250
Prin. Invest.: W E DIETRICH
Tech. Officer: HQ/M BALTUCK, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 51378 UNIVERSITY OF CALIFORNIA - BERKELEY 2298
 GSRP
 06/08/1995 - 09/30/1997 FY99: \$2,022 Total: \$44,000
Prin. Invest.: R J SAYKALLY
Tech. Officer: HQ/D HOLLAND
CASE Category: 12 - CHEMISTRY

NGT 2 52233 UNIVERSITY OF CALIFORNIA - BERKELEY 2299
 CHARACTERIZATION OF MICROBIAL DIVERSITY IN YELLOWSTONE FUMAROLAE: THE SEARCH FOR PRIMITIVE LIFE IN
 08/26/1997 - 07/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: N R PACE
Tech. Officer: ARC/D J DES MARAIS
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NGT 2 52258 UNIVERSITY OF CALIFORNIA - BERKELEY 2300
 HIGH-RESOLUTION GROUND-BASED MAPPING OF TITAN'S SURFACE &
 HAZE LAYER
 08/11/1999 - 07/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: I DEPATER
Tech. Officer: ARC/C P MCKAY
CASE Category: 11 - ASTRONOMY

NGT 2 52259 UNIVERSITY OF CALIFORNIA - BERKELEY 2301
 A SURGICAL AUGMENTED REALITY VISUALIZATION SYSTEM
 09/07/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: S S SASTREY
Tech. Officer: ARC/M D ROSS, ARC/J D SMITH
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 83 UNIVERSITY OF CALIFORNIA - BERKELEY 2302
 SUPERFLUID ANALOG OF THE DC-SQUID FOR MEASURING ABSOLUTE
 ROTATION (STUDENT - RAYMOND SIMONDS)
 05/18/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J C DAVIS
Tech. Officer: GSFC/M S BURRELL
CASE Category: 13 - PHYSICS

NGT 5 30006 UNIVERSITY OF CALIFORNIA - BERKELEY 2303
 HYDROLOGIC CONTROLS ON NUTRIENT CYCLING AND TROPHIC CALIFOR-
 NIA RIVER ECOSYSTEMS
 10/11/1996 - 08/31/2000 FY99: \$0 Total: \$66,000
Prin. Invest.: M POWER
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30044 UNIVERSITY OF CALIFORNIA - BERKELEY 2304
 THE RELATIONSHIP BETWEEN SOIL AGE, LAND USE AND C VALLEY OF
 CALIFORNIA
 12/12/1996 - 08/31/2000 FY99: \$0 Total: \$66,000
Prin. Invest.: D G AMUNDSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30071 UNIVERSITY OF CALIFORNIA - BERKELEY 2305
 PREDICTING WHEN VEGETATION CHANGE MATTERS TO ECOSYSTEMING
 09/09/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M FIRESTONE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30075 UNIVERSITY OF CALIFORNIA - BERKELEY 2306
 THE EFFECT OF WATER ON CARBON CYCLING AND SOIL CARBON SEQUESTRATION
 ECOSYSTEMS
 09/09/1997 - 08/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: D MATSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30089 UNIVERSITY OF CALIFORNIA - BERKELEY 2307
 SOIL DEPTH, TOPOGRAPHY, BIOTA AND CLIMATE CHANGE/E FELLOWSHIP
 PROGRAM/HEIMSATH
 09/10/1997 - 08/31/1998 FY99: -\$6,669 Total: \$15,331
Prin. Invest.: W DIETRICH
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30097 UNIVERSITY OF CALIFORNIA - BERKELEY 2308
 INFLUENCE OF VEGETATION OF FLUVIAL EROSION RATES/IN SCI-
 ENCE FELLOWSHIP PROGRAM/MICHEL
 09/10/1997 - 08/31/1998 FY99: -\$196 Total: \$21,804
Prin. Invest.: J KIRCHNER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30110 UNIVERSITY OF CALIFORNIA - BERKELEY 2309
 A STUDY OF MEV TERRESTRIAL X-RAY BURSTS
 05/11/1998 - 07/31/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R P LIN/MILLAN
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NGT 5 30141 UNIVERSITY OF CALIFORNIA - BERKELEY 2310
 PHOSPHORUS CYCLING OF LAND USE GRADIENT ON TWO SOIL TEXTURES IN A LOWLAND TROPICAL FOREST
 08/27/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: W L SILVER, MCGRODDY
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30183 UNIVERSITY OF CALIFORNIA - BERKELEY 2311
 MEASUREMENT & MODELING OF CARBON, WATER & ENERGY OVER A CALIFORNIA OAK SAVANNA: LINKING THE BIOPHYS
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: T L BENNING
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30219 UNIVERSITY OF CALIFORNIA - BERKELEY 2312
 ATMOSPHERIC NO₂: LASER-INDUCED FLUORESCENCE DETECTION AT THE PART PER TRILLION LEVEL FROM AIRCRAFT
 08/24/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R C COHEN
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50035 UNIVERSITY OF CALIFORNIA - BERKELEY 2313
 THE DYNAMICS OF TWISTED ACTIVE REGION FLUX TUBES
 08/04/1997 - 07/31/1998 FY99: -\$52 Total: \$21,948
Prin. Invest.: G FISHER/LINTON
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50048 UNIVERSITY OF CALIFORNIA - BERKELEY 2314
 CONTINUOUS WAVE OPERATION OF FAR-INFRARED GERMANIUM
 07/17/1997 - 07/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: E HALLER
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50052 UNIVERSITY OF CALIFORNIA - BERKELEY 2315
 NUCLEAR BURNING ON RAPIDLY ACCRETING X-RAY PULSARS
 07/17/1997 - 08/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: L BILDSTEN
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50061 UNIVERSITY OF CALIFORNIA - BERKELEY 2316
 ION OUTFLOW FROM THE AURORAL IONOSPHERE
 08/04/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: CHARLES
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50066 UNIVERSITY OF CALIFORNIA - BERKELEY 2317
 DEVELOPMENT OF A SUPERFLUID HELIUM-4 GYROSCOPE
 09/05/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: D PACKARD
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50072 UNIVERSITY OF CALIFORNIA - BERKELEY 2318
 MUSCLE OXYGENATION AS AN OBJECTIVE METHOD TO EVALUATE STATION GLOVEBOX DESIGN
 09/02/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: S HAMMOND
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50079 UNIVERSITY OF CALIFORNIA - BERKELEY 2319
 GRAVITATIONAL LENSING BY LARGE SCALE STRUCTURE
 09/11/1997 - 08/14/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: J SILK
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50126 UNIVERSITY OF CALIFORNIA - BERKELEY 2320
 ELUCIDATING THE ROLE OF CARBON AND SILICON-CARBON AIR DUST FORMATION STUDEN
 09/09/1997 - 06/30/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: R J SAYKALLY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50133 UNIVERSITY OF CALIFORNIA - BERKELEY 2321
 ASTROPHYSICS OF JETS AND MAGNETIC FIELDS OF SPIRAL
 09/10/1997 - 06/30/1998 FY99: -\$19,334 Total: \$2,666
Prin. Invest.: D C BACKER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50157 UNIVERSITY OF CALIFORNIA - BERKELEY 2322
 THE COMPOSITION OF THE ACTINIDES IN GALACTIC COSMIC
 09/11/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: P PRICE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50188 UNIVERSITY OF CALIFORNIA - BERKELEY 2323
 DIAMONDS IN GIANT PLANETS? EXPERIMENTS ON "PLANETARY ICES" AT HIGH PRESSURES AND TEMPERATURES
 05/27/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R JEANLOZ
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 - PHYSICS

NGT 5 50189 UNIVERSITY OF CALIFORNIA - BERKELEY 2324
 DETERMINATION OF COSMOLOGICAL PARAMETERS THROUGH COSMIC MICROWAVE BACKGROUND OBSERVATIONS WITH THE
 05/27/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: G SMOOT
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 - PHYSICS

NGT 5 50195 UNIVERSITY OF CALIFORNIA - BERKELEY 2325
 BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF THE COSMIC
 MICROWAVE BACKGROUND ON ANGULAR SCALES
 06/04/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: P L RICHARDS
Tech. Officer: HQ/A NURRIDDIN
 CASE Category: 13 - PHYSICS

NGT 5 50196 UNIVERSITY OF CALIFORNIA - BERKELEY 2326
 FRAGMENTATION IN COLLAPSING NON-ISOTHERMAL MOLECULAR
 CLOUDS
 06/04/1998 - 09/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C F MCKEE
Tech. Officer: HQ/A NURRIDDIN
 CASE Category: 13 - PHYSICS

NGT 5 50216 UNIVERSITY OF CALIFORNIA - BERKELEY 2327
 ABOVEGROUND AND BELOWGROUND PLANT SPECIES FUNCTIONAL
 TRAITS AND THEIR RELATION TO ECOSYSTEM FUNCTION
 09/15/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: F S CHAPIN, III
Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50223 UNIVERSITY OF CALIFORNIA - BERKELEY 2328
 REGIONAL CHANGES IN EXTREME EVENT FREQUENCIES WITHIN THE
 UNITED STATES (STUDENT: DIANA DERUBERTIS)
 09/29/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: O E GRANGER, D DERUBERTIS
Tech. Officer: HQ/A NURRIDDIN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50245 UNIVERSITY OF CALIFORNIA - BERKELEY 2329
 INFRARED SPECTROSCOPY OF STAR FORMATION IN SUPERSTAR CLUS-
 TERS WITH KECK/NIRSPEC (STUDENT: ANDRE)
 06/02/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J GRAHAM
Tech. Officer: GSFC/L SMITH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50253 UNIVERSITY OF CALIFORNIA - BERKELEY 2330
 X-RAY SPECTROSCOPY OF EVOLVED SUPERNOVA REMNANTS
 06/07/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: C F MCKEE
Tech. Officer: GSFC/L SMITH
 CASE Category: 11 - ASTRONOMY

NAG 1 2006 UNIVERSITY OF CALIFORNIA - DAVIS 2331
 PREDICTION OF FLOWS ABOUT FOREBODIES AT HIGH ANGLE OF-ATTACK
 DYNAMIC CONDITIONS
 02/12/1998 - 07/30/1999 FY99: \$0 Total: \$49,083
Prin. Invest.: C P VAN DAM
Tech. Officer: LARC/C M FREMAUX
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2215 UNIVERSITY OF CALIFORNIA - DAVIS 2332
 AERO-MECHANICAL DESIGN METHODOLOGY FOR SUBSONIC CIVIL
 TRANSPORT HIGH-LIFT SYSTEMS
 07/20/1999 - 06/30/2000 FY99: \$22,904 Total: \$22,904
Prin. Invest.: C P VAN-DAM
Tech. Officer: LARC/P A GELHAUSEN
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 840 UNIVERSITY OF CALIFORNIA - DAVIS 2333
 HOMEOSTATIC & CIRCADIAN RESPONSES OF RHESUS MONKEYS DURING
 SPACEFLIGHT
 06/11/1993 - 12/31/1998 FY99: \$0 Total: \$715,902
Prin. Invest.: J VERNIKOS
Tech. Officer: ARC/C M WINGET
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 944 UNIVERSITY OF CALIFORNIA - DAVIS 2334
 CNS CONTROL OF RHYTHMS & HOMEOSTASIS DURING SPACE FLIGHT
 12/21/1994 - 08/31/1999 FY99: \$163,766 Total: \$624,482
Prin. Invest.: C A FULLER
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 983 UNIVERSITY OF CALIFORNIA - DAVIS 2335
 EFFECTS OF GRAVITY ON INSECT CIRCADIAN RHYTHMICITY
 05/25/1995 - 06/30/2000 FY99: \$0 Total: \$651,093
Prin. Invest.: T M HOBAN-HIGGINS, C A FULLER, G X WASSMER
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1019 UNIVERSITY OF CALIFORNIA - DAVIS 2336
 MICROGRAVITY EFFECTS ON DEVELOPING VESTIBULAR AFFERENTS
 (NEUROLAB)
 01/22/1996 - 11/30/1999 FY99: \$160,206 Total: \$577,426
Prin. Invest.: B CHAPMAN
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1216 UNIVERSITY OF CALIFORNIA - DAVIS 2337
 TOWARDS REAL-TIME VECTOR FIELD VISUALIZATION FOR MASSIVE &
 MULTI-SOURCE DATA USING HIERARCHIES
 05/04/1998 - 09/30/1999 FY99: \$24,941 Total: \$124,371
Prin. Invest.: B HAMANN
Tech. Officer: ARC/A VAZIRI, ARC/M G YAMASAKI
 CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1251 UNIVERSITY OF CALIFORNIA - DAVIS 2338
 DENIAL OF SERVICE IN THE INFRASTRUCTURE
 08/19/1998 - 09/30/1999 FY99: \$0 Total: \$98,873
Prin. Invest.: M BISHOP
Tech. Officer: ARC/C M FALSETTI, ARC/B H WHITAKER
 CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1265 UNIVERSITY OF CALIFORNIA - DAVIS 2339
 ADAPTATION OF RHESUS MACAQUES TO A HYPERDYNAMIC ENVIRON-
 MENT
 09/14/1998 - 11/30/1999 FY99: \$392,099 Total: \$445,000
Prin. Invest.: C A FULLER
Tech. Officer: ARC/R E GRINDELAND, ARC/K L SOUZA
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 3 2153 UNIVERSITY OF CALIFORNIA - DAVIS 2340
 EXPERIMENTAL STUDIES OF MULTIPHASE MATERIALS USING NUCLEAR
 MAGNETIC RESONANCE
 05/13/1998 - 03/08/2002 FY99: \$34,000 Total: \$96,000
Prin. Invest.: B L POWELL, S DUGAN, R PHILLIPS
Tech. Officer: GRC/F P CHIARAMONTE
CASE Category: 43 - CHEMICAL ENGR

NAG 5 3001 UNIVERSITY OF CALIFORNIA - DAVIS 2341
 AIRBORNE LASER ALTIMETRIC MONITORING OF THE RAPID EVOLUTION OF
 TOPOGRAPHY IN LONG VALLEY, CALIF...
 07/14/1995 - 07/31/2000 FY99: \$0 Total: \$194,646
Prin. Invest.: J MINSTER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3959 UNIVERSITY OF CALIFORNIA - DAVIS 2342
 FATNESS, FOOD INTAKE AND HYPERGRAVITY: RESPONSES O
 03/17/1997 - 12/31/1999 FY99: \$0 Total: \$239,000
Prin. Invest.: B HORWITZ
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4320 UNIVERSITY OF CALIFORNIA - DAVIS 2343
 CIRCADIAN RHYTHMS IN RHESUS, GRAVITY LIGHT AND GE
 04/04/1997 - 06/30/1999 FY99: \$0 Total: \$181,876
Prin. Invest.: C A FULLER
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4711 UNIVERSITY OF CALIFORNIA - DAVIS 2344
 MEASURING PHOTOCHEMICAL BRANCHING RATIOS FOR COMET USING
 THE ADVANCED LIGHT SOURCE AT THE CHEMICAL D
 06/11/1997 - 04/30/1999 FY99: \$0 Total: \$170,000
Prin. Invest.: D M JACKSON
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6246 UNIVERSITY OF CALIFORNIA - DAVIS 2345
 MARS BOUNDARY LAYER STABILITY EXPERIMENTS OF DUST
 08/19/1997 - 07/14/2000 FY99: \$69,488 Total: \$130,963
Prin. Invest.: D WHITE
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6440 UNIVERSITY OF CALIFORNIA - DAVIS 2346
 EFFECT OF GRAVITY ON THE REGULATION OF CIRCADIAN RHYTHMS
 11/03/1997 - 06/30/2000 FY99: \$0 Total: \$118,910
Prin. Invest.: D MURAKAMI
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6541 UNIVERSITY OF CALIFORNIA - DAVIS 2347
 CENTER OF EXCELLENCE FOR CLIMATE, ENVIRONMENT AND WATER
 RESOURCES ASSESSMENTS OF CALIFORNIA
 10/21/1997 - 09/30/1998 FY99: \$0 Total: \$394,351
Prin. Invest.: S L USTIN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7046 UNIVERSITY OF CALIFORNIA - DAVIS 2348
 X-RAY PROPERTIES OF A LARGE SAMPLE OF BL LACERTAE OBJECTS:
 DEFINING THE TRANSITION BETWEEN RADIO- AN
 02/18/1998 - 02/28/1999 FY99: \$0 Total: \$48,500
Prin. Invest.: S LAURENT-MUEHLEI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7216 UNIVERSITY OF CALIFORNIA - DAVIS 2349
 USE OF HYPER-SPECTRAL IMAGERY TO IDENTIFY AND MAP LEAFY
 SPURGE INFESTATIONS AT THEODORE ROOSEVELT
 03/31/1998 - 03/31/2000 FY99: \$43,800 Total: \$102,685
Prin. Invest.: S L USTIN
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7441 UNIVERSITY OF CALIFORNIA - DAVIS 2350
 GEOMETRIC PARAMETERIZATION OF RAINFALL FIELDS
 06/02/1998 - 06/14/2000 FY99: \$40,000 Total: \$80,000
Prin. Invest.: C E PUENTE
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7649 UNIVERSITY OF CALIFORNIA - DAVIS 2351
 THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PRE-
 DICT MOSQUITO-BORNE ENCEPHALITIS TRANSMIS
 09/03/1998 - 12/31/1999 FY99: \$6,000 Total: \$36,000
Prin. Invest.: W REISEN
Tech. Officer: GSFC/B W MESSON
CASE Category: 99 - MULTIDISCIPL, OTHER

NAG 5 8258 UNIVERSITY OF CALIFORNIA - DAVIS 2352
 ION IMAGING STUDIES OF VUV PHOTODISSOCIATION OF COMETARY
 PARENT MOLECULES
 02/17/1999 - 03/31/2000 FY99: \$131,388 Total: \$131,388
Prin. Invest.: W JACKSON
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8391 UNIVERSITY OF CALIFORNIA - DAVIS 2353
 X-RAY PROPERTIES OF DEEP-RADIO-SELECTED QUASARS (A DP98)
 03/05/1999 - 03/14/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: R H BECKER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8430 UNIVERSITY OF CALIFORNIA - DAVIS 2354
 THE FORMATION OF GALAXY CLUSTERS (LTS 98)
 05/10/1999 - 05/14/2000 FY99: \$89,765 Total: \$89,765
Prin. Invest.: S STANFORD
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8586 UNIVERSITY OF CALIFORNIA - DAVIS 2355
 SUPPORT OF THE INTERNATIONAL CONGRESS MANAGING FOR ECOSYS-
 TEM HEALTH, 15-20 AUGUST 1999, SACRAMENTO
 06/28/1999 - 06/30/2000 FY99: \$48,500 Total: \$48,500
Prin. Invest.: C O QUALSET
Tech. Officer: GSFC/B W MESSON
CASE Category: 99 - MULTIDISCIPL, OTHER

NAG 5 8823 UNIVERSITY OF CALIFORNIA - DAVIS 2356
 CONFERENCE: 7TH INTERNATIONAL SYMPOSIUM ON PARTICLES, STRINGS & COSMOLOGY, DECEMBER 1999 - PASCOS-9
 09/09/1999 - 12/16/1999 FY99: \$10,000 Total: \$10,000
Prin. Invest.: J GUNION
Tech. Officer: GSFC/P CRANE
CASE Category: 11 - ASTRONOMY

NAG 8 1143 UNIVERSITY OF CALIFORNIA - DAVIS 2357
 THE GLOBAL ATMOSPHERIC RESPONSE TO LOCALIZED LOW FREQUENCY FORCING
 05/24/1995 - 03/31/2001 FY99: \$57,000 Total: \$177,000
Prin. Invest.: T R NATHAN
Tech. Officer: MSFC/T L MILLER, MSFC/S H CHOW
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 825 UNIVERSITY OF CALIFORNIA - DAVIS 2358
 MICROGRAVITY THRESHOLDS FOR ANTI CANCER DRUG PROD.
 08/09/1995 - 11/08/1999 FY99: \$0 Total: \$239,978
Prin. Invest.: D J DURZAN
Tech. Officer: JSC/N PELLIS
CASE Category: 56 - MEDICL

NAG 9 1048 UNIVERSITY OF CALIFORNIA - DAVIS 2359
 MESOSCOPIC INSTRUMENTATION MINITURE FTIR FOR ENVIRONMENTAL MONITORING
 08/13/1998 - 08/04/2000 FY99: \$136,783 Total: \$182,783
Prin. Invest.: S D COLLINS
Tech. Officer: HQ/D L JAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4552 UNIVERSITY OF CALIFORNIA - DAVIS 2360
 EFFECT OF GRAVITY ON THE REGULATION OF CIRCADIAN RHYTHMS
 06/28/1995 - 03/31/1999 FY99: \$0 Total: \$245,530
Prin. Invest.: D M MURAKAMI
Tech. Officer: HQ/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG13 99023 UNIVERSITY OF CALIFORNIA - DAVIS 2361
 USING REMOTE SENSING TO MONITOR THE IMPACTS OF FLOOD-IRRIGATION OF MEADOWS IN EAST WALKER RIVER
 08/25/1999 - 08/19/2000 FY99: \$91,902 Total: \$91,902
Prin. Invest.: D W TATE
Tech. Officer: SSC/R MCKELLIP
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 5 31359 UNIVERSITY OF CALIFORNIA - DAVIS 2362
 EOS-BIOSPHERE-ATMOSPHERE INTERACTIONS STUDY
 11/05/1991 - 12/31/1999 FY99: \$65,000 Total: \$533,400
Prin. Invest.: S USTIN
Tech. Officer: GSFC/P SELLERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 32959 UNIVERSITY OF CALIFORNIA - DAVIS 2363
 CYCLOTRON BEAM TIME
 09/18/1995 - 05/31/1999 FY99: \$24,186 Total: \$111,686
Prin. Invest.: D CASTANEDA
Tech. Officer: GSFC/K A LABEL
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 1 266 UNIVERSITY OF CALIFORNIA - DAVIS 2364
 DEVELOPMENT OF A DESIGN METHODOLOGY FOR RECONFIGURABLE FLIGHT CONTROL SYSTEM
 11/25/1997 - 01/24/1999 FY99: \$0 Total: \$52,513
Prin. Invest.: R A HESS
Tech. Officer: LARC/B J BACON
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 345 UNIVERSITY OF CALIFORNIA - DAVIS 2365
 DEVELOPMENT OF A DESIGN METHODOLOGY FOR RECONFIGURABLE FLIGHT CONTROL SYSTEMS
 07/06/1999 - 07/14/2000 FY99: \$25,121 Total: \$25,121
Prin. Invest.: R A HESS
Tech. Officer: GSFC/B J BACON
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 873 UNIVERSITY OF CALIFORNIA - DAVIS 2366
 NUMERICAL STUDY OF TIP VORTEX FLOWS
 08/29/1994 - 07/31/1998 FY99: \$0 Total: \$335,351
Prin. Invest.: M HAFEZ
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 880 UNIVERSITY OF CALIFORNIA - DAVIS 2367
 DESIGN OF ADVANCED SUBSONIC TRANSPORTS USING NUMERICAL SOLUTION OF THE FULL POTENTIAL EQUATION
 12/19/1994 - 09/30/1998 FY99: \$0 Total: \$260,053
Prin. Invest.: M M HAFEZ, D J KINNEY
Tech. Officer: ARC/P A GELHAUSEN, ARC/K B CARBAJAL
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 905 UNIVERSITY OF CALIFORNIA - DAVIS 2368
 PERCEPTUAL AND MOTOR RESPONSES TO VISUAL DISPLAYS
 06/21/1995 - 08/31/1999 FY99: \$0 Total: \$65,000
Prin. Invest.: R B POST
Tech. Officer: ARC/R B WELCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 970 UNIVERSITY OF CALIFORNIA - DAVIS 2369
 THE EFFECTS OF CENTRIFUGATION ON RODENT WATER BALANCE
 09/24/1996 - 01/31/1999 FY99: \$0 Total: \$66,686
Prin. Invest.: C A FULLER, PH.D.
Tech. Officer: ARC/S M HING, ARC/C C JOHNSON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 1011 UNIVERSITY OF CALIFORNIA - DAVIS 2370
 EFFICIENT PARALLEL ALGORITHMS FOR INVISCID & VISCOUS FLOW SIMULATION
 01/27/1998 - 01/31/2000 FY99: \$71,872 Total: \$142,079
Prin. Invest.: M HAFEZ, J CHATTAT
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 1131 UNIVERSITY OF CALIFORNIA - DAVIS 2371
 EYE MOVEMENT VISUAL PERCEPTION & CONTROL
 07/23/1999 - 10/31/1999 FY99: \$12,358 Total: \$12,358
Prin. Invest.: R A HESS
Tech. Officer: ARC/L S SROUE, ARC/B SWEET
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5201 UNIVERSITY OF CALIFORNIA - DAVIS 2372
 AN ANJOINT BASED DESIGN METHOD FOR THE COUPLED EUL ER/INTE-
 GRAL BOUNDARY LAYER EQUATION
 12/23/1996 - 09/30/1998 FY99: \$0 Total: \$70,807
Prin. Invest.: J CHATTOT
Tech. Officer: ARC/S C SMITH
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5214 UNIVERSITY OF CALIFORNIA - DAVIS 2373
 MATERIAL CHARACTERIZATION FOR DUCTILE FRACTURE PREDICTION
 05/13/1997 - 06/30/1999 FY99: \$0 Total: \$68,493
Prin. Invest.: M R HILL
Tech. Officer: ARC/T L PANONTIN
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 5223 UNIVERSITY OF CALIFORNIA - DAVIS 2374
 MULTI-VIEW ANGLE SPECTRAL UNMIXING POLDER IMAGE DATA
 06/24/1997 - 12/31/1999 FY99: \$40,025 Total: \$80,162
Prin. Invest.: S USTIN
Tech. Officer: ARC/V C VANDERBILT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 5229 UNIVERSITY OF CALIFORNIA - DAVIS 2375
 CONVERGENCE ACCELERATION OF HIGH SPEED FLOW SIMULATIONS
 07/17/1997 - 05/31/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: M HAFEZ
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5238 UNIVERSITY OF CALIFORNIA - DAVIS 2376
 DEVELOPING A METHODOLOGY TO INCLUDE PILOT BEHAVIOR AND PER-
 CEPTUAL CHARACTERISTICS FOR GROUND-BASED.
 08/26/1997 - 05/31/1999 FY99: \$19,032 Total: \$62,658
Prin. Invest.: R HESS
Tech. Officer: ARC/D TRAN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5240 UNIVERSITY OF CALIFORNIA - DAVIS 2377
 APPROXIMATE METHODS FOR CORRECTING POTENTIAL FLOW SOLU-
 TIONS
 09/22/1997 - 12/31/1998 FY99: \$0 Total: \$40,000
Prin. Invest.: M HAFEZ
Tech. Officer: ARC/D KINNEY
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5255 UNIVERSITY OF CALIFORNIA - DAVIS 2378
 HIGH-LIFT DESIGN METHOD FOR SUBSONIC CIVIL TRANSPORT AIRCRAFT
 02/04/1998 - 06/30/1999 FY99: \$0 Total: \$78,180
Prin. Invest.: C P VAN DAM
Tech. Officer: ARC/D J KINNEY
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5292 UNIVERSITY OF CALIFORNIA - DAVIS 2379
 IMPLEMENTATION OF PARALLEL COMPUTING TECHNOLOGY
 09/09/1998 - 08/31/1999 FY99: \$60,000 Total: \$90,000
Prin. Invest.: M HAFEZ, J S DACLES-MARIANI
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5308 UNIVERSITY OF CALIFORNIA - DAVIS 2380
 NUMERICAL SIMULATION OF TIME-DEPENDENT VISCOUS FLO WS ABOUT
 WIND TURBINES
 02/23/1999 - 03/31/2000 FY99: \$45,173 Total: \$45,173
Prin. Invest.: C P VANDAM
Tech. Officer: ARC/E N DUQUE
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5329 UNIVERSITY OF CALIFORNIA - DAVIS 2381
 PARALLEL PERFORMANCE EVALUATION OF NAVIER-STOKES C OMPUTA-
 TIONS FOR LARGE SCALE ENGINEERING PROBLEMS
 07/01/1999 - 11/30/1999 FY99: \$32,000 Total: \$32,000
Prin. Invest.: M HAFEZ
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5343 UNIVERSITY OF CALIFORNIA - DAVIS 2382
 EXPLORING THE BRDF POTENTIAL OF POLARIZED REFLECTA NCE
 08/11/1999 - 03/31/2000 FY99: \$52,800 Total: \$52,800
Prin. Invest.: S L USTIN
Tech. Officer: ARC/V C VANDERBILT, ARC/E P CONDON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 3 353 UNIVERSITY OF CALIFORNIA - DAVIS 2383
 ELECTROHYDRODYNAMIC POOLING IN REDUCED GRAVITY
 06/29/1994 - 08/30/2000 FY99: \$0 Total: \$100,000
Prin. Invest.: B D SHAW
Tech. Officer: GRC/F P CHIARAMONTE
CASE Category: 46 - MECHANICAL ENGR

NCC 3 477 UNIVERSITY OF CALIFORNIA - DAVIS 2384
 COMBUSTION EXPERIMENTS IN REDUCED GRAVITY WITH TWO -COM-
 PONENT MISCIBLE DROPLETS
 05/21/1996 - 05/20/2000 FY99: \$83,708 Total: \$320,751
Prin. Invest.: B SHAW
Tech. Officer: GRC/D DIETRICH
CASE Category: 13 - PHYSICS

NCC 3 668 UNIVERSITY OF CALIFORNIA - DAVIS 2385
 THE IMPACT OF BUOYANCY AND FLAME STRUCTURE ON SOOT , RADI-
 ATION AND NOX EMISSIONS FROM A TURBULENT DI
 02/12/1999 - 11/30/2002 FY99: \$43,224 Total: \$43,224
Prin. Invest.: I M KENNEDY
Tech. Officer: GRC/K R SACKSTEDER
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 683 UNIVERSITY OF CALIFORNIA - DAVIS 2386
 COMBUSTION OF HAN-BASED MONOPROPELLANT IN REDUCED GRAVITY
 03/08/1999 - 01/03/2003 FY99: \$98,000 Total: \$98,000
Prin. Invest.: B D SHAW
Tech. Officer: GRC/D L DIETRICH
CASE Category: 49 - ENGINEERING, OTHER

NCC 4 114 UNIVERSITY OF CALIFORNIA - DAVIS 2387
 REMOTE INFRARED THERMOGRAPHY FOR IN-FLIGHT FLOW DI AGNOS-
 TICS
 01/30/1998 - 01/31/1999 FY99: \$0 Total: \$37,675
Prin. Invest.: C P VAN DAM
Tech. Officer: DFRC/D BANKS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 4 118 UNIVERSITY OF CALIFORNIA - DAVIS 2388
 IMPROVED QUANTITATIVE FEEDBACK THEORY DESIGN OF FLIGHT CONTROL SYSTEMS THROUGH SCHEDULING
 03/12/1998 - 09/30/1999 FY99: \$0 Total: \$37,833
Prin. Invest.: R HESS
Tech. Officer: DFRC/J BURKEN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 4 120 UNIVERSITY OF CALIFORNIA - DAVIS 2389
 APPLICATION OF REMOTE INFRARED THERMOGRAPHY
 01/27/1999 - 01/25/2000 FY99: \$34,588 Total: \$34,588
Prin. Invest.: C P VAN DAM
Tech. Officer: DFRC/D BANKS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 287 UNIVERSITY OF CALIFORNIA - DAVIS 2390
 MICROFABRICATED QUADRUPOLE FOR A MINITURIZED MASS SPECTROMETER
 01/06/1998 - 11/30/1999 FY99: \$0 Total: \$30,285
Prin. Invest.: R SMITH
Tech. Officer: GSFC/D HARPOLD
CASE Category: 49 - ENGINEERING, OTHER

NGT 30300 UNIVERSITY OF CALIFORNIA - DAVIS 2391
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/11/1995 - 08/31/1998 FY99: -\$14,255 Total: \$7,745
Prin. Invest.: M B PARLANGE
Tech. Officer: HQ/M Y WEI, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30341 UNIVERSITY OF CALIFORNIA - DAVIS 2392
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/04/1995 - 08/31/1998 FY99: -\$297 Total: \$43,703
Prin. Invest.: S L USTIN
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 2 52238 UNIVERSITY OF CALIFORNIA - DAVIS 2393
 RELATIONSHIP BETWEEN DYNAMIC BAROREFLEX RESPONSE CHARACTERISTICS & STATIC BAROREFLEX FUNCTION IN...
 01/26/1998 - 09/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: P MOLE
Tech. Officer: ARC/J E GREENLEAF
CASE Category: 56 - MEDICL

NGT 2 52241 UNIVERSITY OF CALIFORNIA - DAVIS 2394
 16TH INTERNATIONAL CONFERENCE ON NUMERICAL METHODS IN FLUID DYNAMICS
 05/15/1998 - 12/31/1999 FY99: \$0 Total: \$25,000
Prin. Invest.: J J CHATTOT
Tech. Officer: ARC/J FLORES
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 5 30052 UNIVERSITY OF CALIFORNIA - DAVIS 2395
 LANDSCAPE STRUCTURE IS AN EARTH SYSTEM RESPONSE TO CLIMATE CHANGE
 09/06/1997 - 08/31/1998 FY99: -\$4,577 Total: \$17,423
Prin. Invest.: S L USTIN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30073 UNIVERSITY OF CALIFORNIA - DAVIS 2396
 CLIMATE CONTROL OF VEGETATION AND GROWTH FORM DIST WATER AND ENERGY BALANCE AT LANDSCAPE SCALES
 09/09/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: J GIBELING
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30187 UNIVERSITY OF CALIFORNIA - DAVIS 2397
 FORMATION, DETECTION & QUANTIFICATION OF OXIDIZED HALOGEN SPECIES IN AEROSOLS FROM THE MARINE BOUND
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: C ANASTASIO
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50068 UNIVERSITY OF CALIFORNIA - DAVIS 2398
 GENDER DIFFERENCES IN THE RESPONSES OF RHESUS MONK ENVIRONMENT
 09/02/1997 - 06/30/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: C FULLER
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50204 UNIVERSITY OF CALIFORNIA - DAVIS 2399
 FATNESS, FOOD INTAKE AND HYPERGRAVITY: MECHANISMS OF REGULATION
 07/01/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C A FULLER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50230 UNIVERSITY OF CALIFORNIA - DAVIS 2400
 UTILIZING SCIGN VELOCITY SOLUTIONS TO MODEL LITHOSPHERIC PROCESSES IN THE WESTERN TRANSVERSE RANGE
 05/24/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: L H KELLOGG, GLASCO
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1906 UNIVERSITY OF CALIFORNIA - IRVINE 2401
 COUPLING ATMOSPHERIC CIRCULATION AND CHEMISTRY: DEVELOPING CTMS FOR CLIMATE SIMULATIONS
 02/28/1997 - 02/29/2000 FY99: \$86,485 Total: \$268,485
Prin. Invest.: M J PRANTHER
Prin. Invest.: NONE
Tech. Officer: LARC/G L MADREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2005 UNIVERSITY OF CALIFORNIA - IRVINE 2402
 UPGRADING MEAS CAPABILITIES FOR HYDROCARBONS, HALOCARBONS, AND ALKYL NITRATES
 02/12/1998 - 02/11/1999 FY99: \$0 Total: \$300,000
Prin. Invest.: D R BLAKE
Tech. Officer: LARC/J M HOELL, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2104 UNIVERSITY OF CALIFORNIA – IRVINE 2403
 EXPERIMENTAL INVESTIGATION OF SUPERSONIC COPLANAR JETS WITHIN
 EJECTORS
 09/02/1998 – 07/31/2001 FY99: \$90,960 Total: \$103,889
Prin. Invest.: D PAPAMOSCHOU
Tech. Officer: LARC/J M SEINER, LARC/M K PONTON
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 942 UNIVERSITY OF CALIFORNIA – IRVINE 2404
 NEURAL-THYROID INTERACTION ON SKELETAL ISOMYOSIA E XPRESSION
 IN OG (ZERO GRAVITY)
 12/22/1994 – 11/30/1999 FY99: \$220,795 Total: \$520,201
Prin. Invest.: K M BALDWIN
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 3 1605 UNIVERSITY OF CALIFORNIA – IRVINE 2405
 EFFECTS OF GRAVITY ON SHEARED AND NON SHEARED TURBULENT
 NONPREMIXED FLAMES
 05/23/1994 – 12/31/1998 FY99: \$0 Total: \$465,000
Prin. Invest.: S E ELGHOBASHI, K K NOMURA
Tech. Officer: GRC/H D ROSS
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1831 UNIVERSITY OF CALIFORNIA – IRVINE 2406
 EFFECTS OF GRAVITY ON SHEARED TURBULENCE LADEN WITH BUBBLES
 OR DROPLETS
 05/02/1996 – 05/01/2000 FY99: \$100,000 Total: \$333,000
Prin. Invest.: S ELGHOBASHI, J LA SHERAS
Tech. Officer: GRC/S LA SHERAS
CASE Category: 13 – PHYSICS

NAG 3 1981 UNIVERSITY OF CALIFORNIA – IRVINE 2407
 MACH WAVE ELIMINATION IN SUPERSONIC JETS
 10/28/1996 – 03/31/1999 FY99: \$0 Total: \$147,827
Prin. Invest.: D PAPAMOSCHOU
Tech. Officer: GRC/M D DAHL
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2024 UNIVERSITY OF CALIFORNIA – IRVINE 2408
 IGNITION AND FLAME SPREAD ABOVE LIQUID FUEL POOLS: GRAVITY
 EFFECTS
 03/01/1997 – 02/29/2000 FY99: \$101,415 Total: \$248,115
Prin. Invest.: W A SIRIGNANO
Tech. Officer: GRC/H D ROSS
CASE Category: 46 – MECHANICAL ENGR

NAG 3 2226 UNIVERSITY OF CALIFORNIA – IRVINE 2409
 APPLICATIONS OF ELECTRIC FIELD IN MICROGRAVITY COMBUSTION
 02/01/1999 – 11/29/2002 FY99: \$88,000 Total: \$88,000
Prin. Invest.: D DUNN-RANKIN, NONE
Tech. Officer: GRC/H D ROSS
CASE Category: 49 – ENGINEERING, OTHER

NAG 4 145 UNIVERSITY OF CALIFORNIA – IRVINE 2410
 ROBUST NONLINEAR FLIGHT CONTROL WITH GOOD HANDLING QUALITIES
 03/12/1998 – 01/14/2000 FY99: \$7,880 Total: \$64,937
Prin. Invest.: K MEASE
Tech. Officer: DFR/J CARTER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 4 166 UNIVERSITY OF CALIFORNIA – IRVINE 2411
 ROBUST NONLINEAR FLIGHT CONTROL
 02/25/1999 – 02/25/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: K MEASE
Tech. Officer: DFR/J CARTER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 2306 UNIVERSITY OF CALIFORNIA – IRVINE 2412
 INPUT, ACCUMULATION AND TURNOVER OF CARBON IN BOREAL FOREST
 SOILS
 07/01/1993 – 12/14/1998 FY99: \$0 Total: \$616,048
Prin. Invest.: S TRUMBORE
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 2724 UNIVERSITY OF CALIFORNIA – IRVINE 2413
 TROPOPAUSE MIXING AND CHEMISTRY: THE IMPACT OF NOX INJECTIONS
 09/21/1994 – 09/30/1998 FY99: \$0 Total: \$140,793
Prin. Invest.: M J PRATHER
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2780 UNIVERSITY OF CALIFORNIA – IRVINE 2414
 STUDIES OF LOWER STRATOSPHERIC PHOTOCHEMISTRY AND TRANS-
 PORT USING COMBINED UARS AND IN SITU DATASETS
 11/07/1994 – 11/14/1997 FY99: \$0 Total: \$289,537
Prin. Invest.: D W TOOHEY
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3457 UNIVERSITY OF CALIFORNIA – IRVINE 2415
 STABLE ISOTOPES AND RADIOCARBON IN ATMOSPHERIC MET
 11/05/1996 – 09/30/1999 FY99: \$0 Total: \$519,278
Prin. Invest.: S C TYLER
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3692 UNIVERSITY OF CALIFORNIA – IRVINE 2416
 A DATA-PARALLEL COMPUTING ENVIRONMENT (SHARK OS)
 01/22/1997 – 09/30/1999 FY99: \$0 Total: \$93,910
Prin. Invest.: I SCHERSON
Tech. Officer: GSFC/J DORBAND
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 3741 UNIVERSITY OF CALIFORNIA – IRVINE 2417
 MECHANICAL AND MOLECULAR STIMULI FOR NORMALIZING MUNLOADING
 03/11/1997 – 08/14/1998 FY99: -\$3,675 Total: \$163,287
Prin. Invest.: G ADAMS
Tech. Officer: GSFC/F M SULZMAN
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 3767 UNIVERSITY OF CALIFORNIA – IRVINE 2418
 LATITUDINAL TROPOSPHERIC CONCENTRATION DISTRIBUTION HALOCAR-
 BONS & HYDROCARBONS
 03/15/1997 – 01/14/2000 FY99: \$205,530 Total: \$622,977
Prin. Invest.: D R BLAKE
Tech. Officer: GSFC/M J KURYLO
CASE Category: 11 – ASTRONOMY

NAG 5 4040 UNIVERSITY OF CALIFORNIA - IRVINE 2419
 MECHANISMS OF MICROGRAVITY EFFECT ON VASCULAR FUNC
 04/17/1997 - 07/31/1998 FY99: \$0 Total: \$207,945
Prin. Invest.: R PURDY
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4536 UNIVERSITY OF CALIFORNIA - IRVINE 2420
 HYDRODYNAMIC SIMULATIONS OF THE FORMATION OF GIANT
 05/06/1997 - 06/30/1999 FY99: \$0 Total: \$30,000
Prin. Invest.: D P RUDEN
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 5069 UNIVERSITY OF CALIFORNIA - IRVINE 2421
 HIGH ENERGY ANTIMATTER TELESCOPE - HEAT
 07/18/1996 - 12/31/1999 FY99: \$0 Total: \$150,000
Prin. Invest.: S W BARWICK
Tech. Officer: WFF/H C NEEDLEMAN, WFF/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5149 UNIVERSITY OF CALIFORNIA - IRVINE 2422
 DEVELOPMENT OF EMPIRICAL MODE DECOMPOSITION METHOD & HIL-
 BERT SPECTRAL ANALYSIS FOR ENGR APPLICATIONS
 09/09/1997 - 02/28/2001 FY99: \$0 Total: \$160,924
Prin. Invest.: J N YANG, Z SHEN
Tech. Officer: GSFC/S R LONG, GSFC/N E HUANG
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6396 UNIVERSITY OF CALIFORNIA - IRVINE 2423
 CHEMISTRY & CIRCULATION OCCULTATION SPECTROSCOPY MI
 SSION(CCOSM) BACK-UP MISSION ON THE EARTH SYSTEM
 10/07/1997 - 09/14/1999 FY99: \$0 Total: \$163,193
Prin. Invest.: M J PRATHER
Tech. Officer: GSFC/R J FITZGERALD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7137 UNIVERSITY OF CALIFORNIA - IRVINE 2424
 DEVELOPING A CHEMICAL TRANSPORT MODEL FOR ASSESSING GLOBAL
 CHANGE IN ATMOSPHERIC COMPOSITION
 03/24/1998 - 09/30/1999 FY99: \$77,500 Total: \$163,500
Prin. Invest.: M J PRATHER
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7301 UNIVERSITY OF CALIFORNIA - IRVINE 2425
 ASSESSING ROLE OF FIRE & SOIL DRAINAGE IN DETERMINING NET C
 FLUXES IN BOREAL ECOSYSTEMS
 05/27/1998 - 04/30/2000 FY99: \$37,843 Total: \$97,428
Prin. Invest.: S TRUMBORE
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8223 UNIVERSITY OF CALIFORNIA - IRVINE 2426
 "TOOLS AND DIAGNOSTICS FOR THE AEAP/GMI STRATOSPHERIC
 ASSESSMENT"
 02/10/1999 - 02/14/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: M J PRATHER
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8685 UNIVERSITY OF CALIFORNIA - IRVINE 2427
 PHOTOCHEMICAL APPLICATIONS OF AEROSOL CLIMATOLOGIE S
 07/16/1999 - 07/14/2000 FY99: \$18,486 Total: \$18,486
Prin. Invest.: M J PRATHER
Tech. Officer: GSFC/M I MISHCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1408 UNIVERSITY OF CALIFORNIA - IRVINE 2428
 R/S GROUND BASED PROGRAM FOR THE PHYSICAL ANALYSIS OF MACRO-
 MOLECULAR CRYSTAL GROWTH
 11/18/1997 - 05/31/1999 FY99: \$108,907 Total: \$200,298
Prin. Invest.: A J MALKIN
Tech. Officer: MSFC/B GUYNES
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1437 UNIVERSITY OF CALIFORNIA - IRVINE 2429
 RESEARCH/3HE-4HE MIXTURES AND DROPLETS STABILIZED IN CESIATED
 CONTAINERS
 03/23/1998 - 01/31/2003 FY99: \$54,000 Total: \$94,000
Prin. Invest.: P TABOREK, J RUTLEDGE
Tech. Officer: MSFC/D HUBBARD
CASE Category: 12 - CHEMISTRY

NAG 8 1569 UNIVERSITY OF CALIFORNIA - IRVINE 2430
 GROWTH PROCESSES AND DEFECT STRUCTURE OF MACRO- MOLECU-
 LAR CRYSTALS.
 03/04/1999 - 11/30/2002 FY99: \$99,000 Total: \$99,000
Prin. Invest.: A J MALKIN
Tech. Officer: MSFC/B GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1572 UNIVERSITY OF CALIFORNIA - IRVINE 2431
 R/S STABILIZATION AND PRESERVATION OF CRYSTALS FOR X-RAY DIF-
 FRACTION EXPERIMENTS
 02/18/1999 - 11/30/2002 FY99: \$110,000 Total: \$110,000
Prin. Invest.: F JURNAK
Tech. Officer: MSFC/B GUYNES
CASE Category: 49 - ENGINEERING, OTHER

NAS 1 19155 UNIVERSITY OF CALIFORNIA - IRVINE 2432
 HALOE SCIENTIFIC INVESTIGATIONS
 05/01/1990 - 11/28/1997 FY99: -\$10,098 Total: \$529,902
Prin. Invest.: R CICERONE
Tech. Officer: LARC/L E MAULDIN, LARC/J M RUSSELL
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 3 27094 UNIVERSITY OF CALIFORNIA - IRVINE 2433
 ENVIRONMENTAL TESTING OF MATERIALS
 02/22/1994 - 03/31/1998 FY99: \$0 Total: \$541,442
Prin. Invest.: G S SAMUELSON, J C EARTHMAN, E J LAVERNIAN
Tech. Officer: GRC/N S JACOBSON, GRC/J L SMIALEK
CASE Category: 49 - ENGINEERING, OTHER

NAS 8 39763 UNIVERSITY OF CALIFORNIA - IRVINE 2434
 CRYSTAL GROWTH FLIGHT APPARATUS
 10/30/1992 - 09/30/1999 FY99: \$2,663,000 Total: \$14,919,818
Prin. Invest.: A MCPHERSON
Tech. Officer: MSFC/S ROBBINS
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 1 299 UNIVERSITY OF CALIFORNIA - IRVINE 2435
 WHOLE AIR SAMPLING FROM THE DC-8 AND P-3B AIRCRAFT DURING
 PEM-TROPICS-B, REF NRA-97-MTPE-13
 06/09/1998 - 05/31/2001 FY99: \$105,001 Total: \$730,001
Prin. Invest.: D R BLAKE
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 1070 UNIVERSITY OF CALIFORNIA - IRVINE 2436
 LABORATORY MODELS OF PROTOCELLS
 11/06/1998 - 08/31/1999 FY99: \$53,000 Total: \$53,000
Prin. Invest.: J K LANYI
Tech. Officer: ARC/A POHORILLE, ARC/M H NEW
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 5333 UNIVERSITY OF CALIFORNIA - IRVINE 2437
 LABORATORY MODELS OF PROTOCELLS
 07/19/1999 - 01/31/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: J K LANYI
Tech. Officer: ARC/A POHORILLE, ARC/M H NEW
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 3 412 UNIVERSITY OF CALIFORNIA - IRVINE 2438
 DETAILED STUDIES OF THE QUICK MIXING IN RICH BURY LOW-NOX ANU-
 LAR CONFIGURATION
 04/13/1995 - 12/11/1999 FY99: \$0 Total: \$503,940
Prin. Invest.: G S SAMUELSEN
Tech. Officer: GRC/J D HOLDEMAN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 280 UNIVERSITY OF CALIFORNIA - IRVINE 2439
 MEASURING THE EFFECTS OF LOGGING ON THE CO2 AND EN ERGY
 EXCHANGE OF APRIMARYFOREST IN TAPAJOS N
 06/24/1998 - 12/31/1999 FY99: \$404,946 Total: \$676,977
Prin. Invest.: M L GOULDEN
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 336 UNIVERSITY OF CALIFORNIA - IRVINE 2440
 CARBON DYNAMICS IN VEGETATION AND SOILS ALONG THE EASTERN LBA
 TRANSECT
 06/16/1998 - 12/31/1999 FY99: \$202,285 Total: \$337,096
Prin. Invest.: S TRUMBORE
Tech. Officer: GSFC/D DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 8 148 UNIVERSITY OF CALIFORNIA - IRVINE 2441
 ENHANCED DEWAR PROGRAM
 12/16/1997 - 09/30/1999 FY99: \$341,302 Total: \$740,601
Prin. Invest.: A MCPHEARSON
Tech. Officer: MSFC/S ROBBINS, MSFC/J MAYO
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 1 52135 UNIVERSITY OF CALIFORNIA - IRVINE 2442
 GRADUATE DTUDENT RESEARCHERS PROGRAM
 06/18/1996 - 06/30/1999 FY99: \$12,000 Total: \$66,001
Prin. Invest.: E J LAVERNA, L DEL CASTILLO
Tech. Officer: LARC/W D BREWER, LARC/D M ROYSTER
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 5 30035 UNIVERSITY OF CALIFORNIA - IRVINE 2443
 A LABORATORY INVESTIGATION TO DETERMINE THE ROLE O REACTIVE
 NITROGEN BALANCE OF THE ATMOSPHERE
 10/17/1996 - 08/31/1999 FY99: -\$14,100 Total: \$44,000
Prin. Invest.: D TOOHEY
Tech. Officer: GSFC/M WEI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30127 UNIVERSITY OF CALIFORNIA - IRVINE 2444
 TIMESCALES OF TERRESTRIAL ECOSYSTEM RESPONSE TO GL OBAL
 CHANGE
 10/10/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M PRATHER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30203 UNIVERSITY OF CALIFORNIA - IRVINE 2445
 LOW LATITUDE NONLINEAR BEHAVIOR OF ROSSBY WAVES COMPOSED OF
 A SPECTRUM OF PHASE SPEEDS/STUDENT
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: G MAGNUSDOTTIR
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50226 UNIVERSITY OF CALIFORNIA - IRVINE 2446
 SIGMA D MEASUREMENT OF METHANE AND MOLECULAR HYDRO GEN IN
 THE ATMOSPHERE
 09/29/1998 - 08/31/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R J RICE, RICE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1899 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2447
 STRATOSPHERIC AEROSOL MICROPHYSICS AND PHYSICAL CHEMISTRY:
 MODELING AND OBSERVATIONS
 04/01/1997 - 03/31/2000 FY99: \$92,000 Total: \$325,980
Prin. Invest.: R P TURCO
Tech. Officer: LARC/G MADDERA, LARC/M M POTEAT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1966 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2448
 RADIATIVE TRANSFER AND SATELLITE REMOTE SOUNDING OF CIRRUS
 CLOUDS USING FIRE-II-IFO DATA
 09/08/1997 - 05/07/2000 FY99: \$0 Total: \$205,000
Prin. Invest.: K N LIOU, S C OU
Tech. Officer: LARC/D S MCDOUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2009 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2449
 AN ANALYSIS OF THE STABLE GROWTH OF SURFACE FLAWS USING
 EPFEAM, EPBEAM-DP AND THE T*INTEGRAL
 02/17/1998 - 09/30/1999 FY99: \$7,501 Total: \$90,001
Prin. Invest.: S N ATLURI
Tech. Officer: LARC/D S DAWICKE, LARC/I S RAJU
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2097 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2450
 AIRCRAFT AEROSOLS AND CONTRAILS: MICROPHYSICAL PROCESS AND
 EVOLUTION
 09/10/1998 - 09/09/2001 FY99: \$60,001 Total: \$102,189
Prin. Invest.: R P TURCO
Tech. Officer: LARC/W L GROSE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 717 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2451
 FRENCH RHESUS PROJECT
 06/21/1991 - 01/31/1999 FY99: \$0 Total: \$2,002,775
Prin. Invest.: V R EDGERTON, R R ROY, J A HODGSON
Tech. Officer: ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1192 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2452
 HIGH SPEED JET NOISE PREDICTION USING NUMERICAL SIMULATIONS
 03/25/1998 - 02/29/2000 FY99: \$0 Total: \$50,000
Prin. Invest.: J B FREUND
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1193 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2453
 MECHANICAL SIGNAL TRANSDUCTION IN COUNTERMEASURES OF
 PHYSIOLOGICAL SCIENCE
 03/25/1998 - 10/31/1999 FY99: \$175,026 Total: \$246,339
Prin. Invest.: T J TIDBALL
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1222 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2454
 HYPERGRAVITY-INDUCED MODIFICATIONS IN SPATIO-TEMPORAL CODING
 AMONG UTRICULAR PRIMARY AFFERENT NEURO
 05/22/1998 - 12/31/1999 FY99: \$96,003 Total: \$136,003
Prin. Invest.: L F HOFFMAN
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1228 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2455
 EXTENDED PULSE TUBE COOLER SCALING
 06/05/1998 - 05/31/1999 FY99: \$0 Total: \$7,600
Prin. Invest.: T K FREDERKING
Tech. Officer: ARC/J M LEE, ARC/P KITTEL
CASE Category: 46 - MECHANICAL ENGR

NAG 2 1238 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2456
 SCALABLE NUMERICAL ALGORITHMS ON NON-HETEROGENEOUS COMPUT-
 ING ENVIRONMENTS WITH DYNAMIC ROUTING & LOAD
 07/17/1998 - 09/30/1999 FY99: \$20,000 Total: \$80,000
Prin. Invest.: T F CHAN, NONE
Tech. Officer: ARC/T J BARTH
CASE Category: 22 - COMPUTERSCIENCE

NAG 2 1249 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2457
 NEXT GENERATION INTERNET BANDWIDTH & TRAFFIC MANAGEMENT
 08/19/1998 - 09/30/1999 FY99: \$0 Total: \$202,418
Prin. Invest.: M GERLA
Tech. Officer: ARC/C M FALSETTI, ARC/B H WHITAKER
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1270 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2458
 NEUROMUSCULAR ADAPTATIONS OF RHESUS MACAQUES TO A HYPERDY-
 NAMIC ENVIRONMENT
 09/18/1998 - 12/31/1999 FY99: \$219,118 Total: \$251,312
Prin. Invest.: V R EDGERTON, J HODGSON, R ROY
Tech. Officer: ARC/R E GRINDELAND, ARC/K L SOUZA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1324 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2459
 COMPUTATION OF HIGH-SPEED JET NOISE
 05/20/1999 - 05/14/2000 FY99: \$40,000 Total: \$40,000
Prin. Invest.: J B FREUND
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1584 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2460
 SCIENCE PLANNING FOR THE TROPIX MISSION
 03/25/1994 - 07/17/1998 FY99: \$0 Total: \$75,000
Prin. Invest.: C T RUSSELL
Tech. Officer: GRC/J M HICKMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1819 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2461
 STUDIES IN THERMOCAPILLARY CONVECTION OF THE MARANGONI-BER-
 NARD TYPE
 05/06/1996 - 05/05/2000 FY99: \$80,000 Total: \$294,000
Prin. Invest.: R E KELLY
Tech. Officer: GRC/B S SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1832 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2462
 INVESTIGATION OF MECHANISMS ASSOCIATED WITH NUCLEAR BOILING
 UNDER MICROGRAVITY CONDITIONS
 05/06/1996 - 05/05/2000 FY99: \$192,947 Total: \$674,880
Prin. Invest.: V K DHIR
Tech. Officer: GRC/D F SHAO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1849 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2463
 THE MELTING OF AQUEOUS FOAMS
 05/06/1996 - 05/31/2000 FY99: \$175,000 Total: \$578,000
Prin. Invest.: D J DURIAN
Tech. Officer: GRC/B SINGH
CASE Category: 13 - PHYSICS

NAG 3 1862 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2464
 FINITE SIZE EFFECTS NEAR THE LIQUID-GAS CRITICAL POINT OF ³He
 05/08/1996 - 05/07/2000 FY99: \$55,000 Total: \$228,680
Prin. Invest.: J RUDNICK
Tech. Officer: GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1889 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2465
 CONTAINERLESS RIPLE TURBULENCE
 05/31/1996 - 05/30/2000 FY99: \$75,000 Total: \$250,000
Prin. Invest.: S PUTTERMAN
Tech. Officer: GRC/R ROGERS
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2108 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2466
 DIFFUSING LIGHT PHOTOGRAPHY OF CONTAINERLESS RIPPLE TURBULENCE
 03/01/1998 - 01/07/2002 FY99: \$150,000 Total: \$250,000
Prin. Invest.: S J PUTTERMAN
Tech. Officer: GRC/W M DUVAL
CASE Category: 13 - PHYSICS

NAG 4 119 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2467
 SYSTEM INTEGRATION MULTIDISCIPLINARY ANALYSIS AND MODELING
 02/24/1997 - 01/28/1999 FY99: \$0 Total: \$100,000
Prin. Invest.: S H LEE, D FELSZECHY
Tech. Officer: DFR/L DUKE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 713 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2468
 ESTIMATION THEORY SATELLITE DATA ASSIMILATION AND ATMOSPHERIC PREDICTABILITY
 09/15/1985 - 12/31/1999 FY99: \$217,000 Total: \$1,682,999
Prin. Invest.: M GHIL
Tech. Officer: GSFC/J PFAENDTNER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1100 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2469
 THEORETICAL TECHNOLOGY RESEARCH FOR THE ISTP
 11/01/1988 - 01/31/1998 FY99: \$0 Total: \$3,518,105
Prin. Invest.: M A ABDALLA
Tech. Officer: GSFC/S A CURTIS, GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 1309 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2470
 COBE DATA ANALYSIS & ATTITUDE VALIDATION
 11/15/1989 - 12/31/1998 FY99: -\$3,005 Total: \$657,787
Prin. Invest.: E L WRIGHT
Tech. Officer: GSFC/J MATHER
CASE Category: 11 - ASTRONOMY

NAG 5 2749 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2471
 SPATIALLY RESOLVED AND INTEGRATED INDICES OF SOLAR AND STELLAR ACTIVITY
 10/06/1994 - 01/14/1998 FY99: -\$102 Total: \$117,532
Prin. Invest.: R K ULRICH
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2953 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2472
 THE HIDDEN OCEAN ON THE TOP OF THE COVE AND THE GEOMAGNETIC SECULAR VARIATION
 06/07/1995 - 09/14/1998 FY99: \$0 Total: \$210,000
Prin. Invest.: S I BREGINSKY
Tech. Officer: GSFC/P TAYLOR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3089 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2473
 THREE-DIMENSIONAL MHD SIMULATIONS OF ACCRETION FLOWS IN ACTIVE GALACTIC NUCLEI
 10/11/1995 - 10/14/1999 FY99: \$0 Total: \$300,000
Prin. Invest.: F V CORONITI
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3171 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2474
 POLAR MAGNETIC FIELD EXPERIMENT
 02/21/1996 - 03/31/1999 FY99: \$0 Total: \$1,653,847
Prin. Invest.: C T RUSSELL
Tech. Officer: GSFC/R A HOFFMAN
CASE Category: 13 - PHYSICS

NAG 5 3235 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2475
 THE COUPLED MAGNETOSPHERE-IONOSPHERE: AURORAL ARCS AND SUBSTORM BREAKUP
 05/16/1996 - 05/31/2000 FY99: \$0 Total: \$715,000
Prin. Invest.: F V CORONITI
Tech. Officer: GSFC/J J GREBOWSKY, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 3252 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2476
 MICROWAVE ANISOTROPY PROBE FOR MIDEX
 06/06/1996 - 06/14/1999 FY99: \$0 Total: \$84,732
Prin. Invest.: E S WRIGHT
Tech. Officer: GSFC/C L BENNETT
CASE Category: 11 - ASTRONOMY

NAG 5 3309 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2477
 AN ISO DATA ANALYSIS BLOCK GRANT
 07/31/1996 - 08/14/1999 FY99: \$0 Total: \$718,800
Prin. Invest.: E E BECKLIN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3722 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2478
 THE MAGNETOTAIL FLUX ROPES: THEIR STRUCTURE, EVOLUTION, MAGNETOSPHERIC DYNAMICS
 02/12/1997 - 01/31/1998 FY99: -\$291 Total: \$24,709
Prin. Invest.: K K KHURANA
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 3761 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2479
 RELATIONSHIP TO BURSTY BULK FLOW EVENTS AND SUBSTORMS
 01/27/1997 - 09/30/1997 FY99: -\$506 Total: \$30,494
Prin. Invest.: F V CORONITI
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 3764 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2480
 SOURCE DETERMINATION FOR SUBSTORM-RELATED ION INJECTION
 02/13/1997 - 04/14/2000 FY99: \$43,541 Total: \$142,083
Prin. Invest.: R J STRANGEWAY, NONE
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 3863 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2481
 THERMAL AND DYNAMICAL PROCESSES IN THE EVOLUTION OF SATELLITES
 02/14/1997 - 11/30/1999 FY99: \$80,000 Total: \$240,000
Prin. Invest.: G SCHUBERT
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3864 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2482
 MARS POLAR STUDIES
 02/14/1997 - 09/30/1997 FY99: -\$175 Total: \$32,825
Prin. Invest.: D A PAIGE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3880 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2483
 DESIGN STUDY FOR A GLOBAL MAGNETOSPHERIC DYNAMICS
 02/26/1997 - 03/31/1999 FY99: \$0 Total: \$137,824
Prin. Invest.: D T RUSSELL
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 3956 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2484
 VENUS TECTONICS AND EVOLUTION
 03/12/1997 - 02/14/2000 FY99: \$39,900 Total: \$107,730
Prin. Invest.: W M KAULA
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3964 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2485
 REGULATION OF VASCULAR NEUROSECRETION BY MECHANICA IN NERVE
 TERMINAL MEMBRANES
 02/13/1997 - 04/30/2000 FY99: \$89,796 Total: \$208,793
Prin. Invest.: A D GRINNELL
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3982 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2486
 OBSERVATION & MODELING OF THE TRANSIENT GENERAL CI NORTH
 PACIFIC OCEAN
 03/03/1997 - 05/31/2000 FY99: \$0 Total: \$226,341
Prin. Invest.: J C MCWILLIAMS
Tech. Officer: GSFC/B C DOUGLAS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4030 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2487
 ISSS-5 MEETING SUPPORT
 03/06/1997 - 02/28/1998 FY99: -\$86 Total: \$9,914
Prin. Invest.: D ASHOUR-ABDALLA
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4066 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2488
 DISSIPATIVE PROCESSES IN THE MAGNETOPAUSE BOUNDARY NSFER
 EVENTS USING THE INTERBALL SPACECRAFT
 03/10/1997 - 03/14/1999 FY99: \$0 Total: \$53,300
Prin. Invest.: D T RUSSELL
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4067 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2489
 THEORETICAL INVESTIGATION OF THE HIGH-ALTITUDE CUS TIONS FROM
 INTERBALL ANDISTP SPACECRAFT
 03/25/1997 - 10/31/1999 FY99: -\$543 Total: \$49,457
Prin. Invest.: D ASHOUR-ABDALLA
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4117 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2490
 DYNAMICAL STUDIES OF PLANETARY AND SATELLITE ATMOS
 02/28/1997 - 01/31/2000 FY99: \$85,000 Total: \$220,001
Prin. Invest.: P SCHUBERT
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4215 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2491
 PRISTINE IGNEOUS ROCKS AND THE EARLY DIFFERENTIATI MATERIALS
 03/19/1997 - 12/14/1999 FY99: \$155,000 Total: \$455,000
Prin. Invest.: D H WARREN
Tech. Officer: GSFC/J BOYCE
CASE Category: 12 - CHEMISTRY

NAG 5 4270 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2492
 ELECTRON PRECIPITATION FROM THE INNER MAGNETOSPHER THE
 MIDDLE ATMOSPHERE
 04/04/1997 - 04/30/2000 FY99: \$110,728 Total: \$216,557
Prin. Invest.: D M THORNE
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4299 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2493
 SOLAR WIND RECORD IN THE LUNAR REGOLITH
 04/15/1997 - 02/28/1999 FY99: \$28,333 Total: \$170,000
Prin. Invest.: D F KERRIDGE
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4305 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2494
 INVESTIGATION OF NEBULAR PROCESSES THROUGH OXYGEN PRIMITIVE
 METEORITE MATERIALS
 04/01/1997 - 09/30/1998 FY99: -\$125 Total: \$29,983
Prin. Invest.: D A LESHIN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4331 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2495
 COSMOCHEMICAL STUDIES: CHONDRITE COMPONENTS AND D METEOR-
 ITES
 04/16/1997 - 01/31/2001 FY99: \$190,000 Total: \$450,000
Prin. Invest.: D T WASSON
Tech. Officer: GSFC/D F NAVA
CASE Category: 12 - CHEMISTRY

NAG 5 4339 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2496
 THE ROLE OF THIN CURRENT SHEETS IN PLASMA SHEET CO DISRUPTION
 04/12/1997 - 02/29/2000 FY99: \$82,333 Total: \$216,533
Prin. Invest.: D L PRITCHETT
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4367 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2497
 MARS SURVEYOR PROGRAM '98 LANDER LANDING SITE STUD
 04/29/1997 - 06/30/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: D A PAIGE
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4420 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2498
 NUMERICAL MODELING OF THE GLOBAL ATMOSPHERE
 05/01/1997 - 12/31/1999 FY99: \$67,000 Total: \$267,000
Prin. Invest.: A ARAKAWA
Tech. Officer: GSFC/M SUAREZ
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4449 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2499
 THE PROPERTIES AND BEHAVIOR OF MARTIAN CARBON DIOX
 06/17/1997 - 02/29/2000 FY99: \$0 Total: \$80,000
Prin. Invest.: D A PAIGE
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4475 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2500
 IS THE HIGH MULTIPLICITY OF T TAURI STARS IN TAURUS PROBLEM FOR
 PLANETARY FORMATION
 06/02/1997 - 06/30/1998 FY99: -\$2 Total: \$39,998
Prin. Invest.: D GHEZ
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4527 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2501
 SIMULATION OF EFFECTS OF PLANETARY WAVE OSCILLATION AND ION-
 OSHERE USING A COUPLED THERMOSPHERE IONOS
 05/06/1997 - 04/30/2000 FY99: \$65,599 Total: \$160,653
Prin. Invest.: D PARISH
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4568 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2502
 PARTICLE GROWTH AND AGGLOMERATION IN THE SOLAR NEB
 05/30/1997 - 12/31/1998 FY99: \$0 Total: \$65,000
Prin. Invest.: D T WASSON
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4612 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2503
 CO-INVESTIGATOR PARTICIPATION IN THE MARS 96 MISSION MARTIAN MAG-
 NETIC FIELD
 05/21/1997 - 12/31/1998 FY99: \$0 Total: \$15,000
Prin. Invest.: D T RUSSELL
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4661 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2504
 SOME STUDIES OF FLUX ROPES IN THE EARTH'S MAGNETOT
 06/05/1997 - 05/31/2000 FY99: \$0 Total: \$152,848
Prin. Invest.: D K KHURANA
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4680 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2505
 AN INTEGRATED STUDY OF RING CURRENT DYNAMICS DURING
 06/17/1997 - 05/31/2000 FY99: \$0 Total: \$176,000
Prin. Invest.: D M THORNE
Tech. Officer: GSFC/D EVANS
CASE Category: 13 - PHYSICS

NAG 5 4683 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2506
 STUDIES OF THE INTRINSIC COMPLEXITIES OF MAGNETOT THEORY AND
 OBSERVATIONS
 06/09/1997 - 04/30/1999 FY99: \$0 Total: \$84,800
Prin. Invest.: D ASHOUR-ABDALLA
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4684 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2507
 DEVELOPMENT OF A MODEL FOR THE NIGHT SIDE MAGNETOPHYSICAL
 06/05/1997 - 12/31/1998 FY99: \$0 Total: \$68,335
Prin. Invest.: D RAEDER
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4685 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2508
 GLOBAL MHD SIMULATIONS OF MESOSCALE STRUCTURES AT THE
 06/17/1997 - 04/30/2000 FY99: \$0 Total: \$64,500
Prin. Invest.: P BERCHEM
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4688 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2509
 TOWARD OTHER SOLAR SYSTEMS: GAS, DUST, BROWN DWARF
 06/17/1997 - 04/30/2000 FY99: \$73,500 Total: \$147,000
Prin. Invest.: D M ZUCKERMAN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4704 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2510
 ISOTOPIC INVESTIGATIONS OF NEBULAR AND PARENT-BODY SENSITIVITY
 ION MICROPROBE
 08/13/1997 - 05/31/2000 FY99: \$212,367 Total: \$325,700
Prin. Invest.: D D MCKEEGAN
Tech. Officer: HQ/J F BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4766 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2511
 CHONDRITIC METEORITES: NEBULAR AND PARENT-BODY FORMATION
 06/05/1997 - 05/31/2000 FY99: \$70,833 Total: \$150,000
Prin. Invest.: D E RUBIN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4837 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2512
 2ND YEAR RENEWAL "INFLAMMATORY AND MECHANICAL COMPONENT INJURY"
 06/26/1997 - 09/30/1999 FY99: \$0 Total: \$379,852
Prin. Invest.: J TIDBALL
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6008 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2513
 ACTIVE REGION IDENTIFICATION USING MDI IMAGES
 08/19/1997 - 06/30/1998 FY99: \$0 Total: \$24,030
Prin. Invest.: D M PAP
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6036 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2514
 RADIATIVE AND CLIMATE EFFECT OF CONTRAIL CIRRUS
 10/23/1997 - 02/28/1998 FY99: \$0 Total: \$118,426
Prin. Invest.: L KUO-NAN
Tech. Officer: GSFC/R STEWART
CASE Category: 11 - ASTRONOMY

NAG 5 6082 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2515
 ISOTOPIC AND EXPERIMENTAL CONSTRAINTS ON THE GENES RTIAN
 METEORITE ALH84001
 08/26/1997 - 07/31/1999 FY99: \$0 Total: \$69,000
Prin. Invest.: L A LESHIN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6160 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2516
 LIGHT SCATTERING OF REMOTE SENSING AT CIRRUS CLOUDS USING
 MODIS CHANNELS
 10/29/1997 - 03/31/1998 FY99: \$0 Total: \$60,000
Prin. Invest.: K N LIU
Tech. Officer: GSFC/M KING
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6243 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2517
 THE NEAR-EARTH PLASMA SHEET AND ITS RESPONSE TO TH ON, AND
 LARGE-SCALE DISTURBANCES
 08/19/1997 - 06/30/2000 FY99: \$0 Total: \$140,000
Prin. Invest.: P R LYONS
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6265 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2518
 ASSYM. AURORAL PROCESSES
 08/21/1997 - 06/30/2000 FY99: \$139,407 Total: \$246,911
Prin. Invest.: D M THORNE
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6272 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2519
 CONDENSATION OF THE MARTIAN ATMOSPHERE DURING POLA DYNAMICS
 & MICROPHYSICS
 08/27/1997 - 08/31/2000 FY99: \$0 Total: \$60,400
Prin. Invest.: D PAIGE
Tech. Officer: GSFC/R BEEBE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6307 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2520
 WAVELENGTH-TUNABLE NOVEL SEMICONDUCTOR DIR DETECTORS FOR
 ISR ASTRONOMY RESEARCH
 10/10/1997 - 06/14/1999 FY99: \$28,000 Total: \$56,000
Prin. Invest.: D L WANG
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 6332 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2521
 OBSERVATIONAL AND THEORETICAL STUDIES OF SOLAR STR
 09/30/1997 - 04/30/2000 FY99: \$317,677 Total: \$627,807
Prin. Invest.: D K ULRICH
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6377 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2522
 SUBSTORM BREAK-UP AS A COUPLED MAGNETOSPHERE-IONO SPHERE
 INSTABILITY
 10/08/1997 - 08/31/2000 FY99: \$53,333 Total: \$126,000
Prin. Invest.: D PELLAT
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6386 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2523
 GENERAL CIRCULATION OF THE SOUTHERN HEMISPHERE
 09/26/1997 - 05/31/1999 FY99: \$0 Total: \$125,000
Prin. Invest.: C R MECHOSO
Tech. Officer: GSFC/J A KAYE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6397 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2524
 IMGRASS RADIATION AND REMOTE SENSING PROGRAM IN SUPPORT OF
 BSRN
 10/29/1997 - 11/14/1999 FY99: \$0 Total: \$23,358
Prin. Invest.: K N LIU
Tech. Officer: GSFC/M DAH CHOU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6407 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2525
 AN HRI IMAGE OF A BRIGHT SEYFERT 2 GALAXY & A POSS IBLE X-RAY
 EMITTING PRE-MAIN-SEQUENCE STAR
 10/10/1997 - 10/14/1999 FY99: \$0 Total: \$10,200
Prin. Invest.: M MALKAN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6657 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2526
 A CAMPUS-WIDE INITIATIVE FOR INTERDISCIPLINARY STU DY OF THE
 ENVIRONMENT WITH REMOTE SENSING
 12/16/1997 - 11/14/1998 FY99: -\$1,552 Total: \$191,448
Prin. Invest.: L SMITH
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6680 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2527
 SPECTRAL DISTRIBUTION OF SOLAR IRRADIANCE VARIABIL ITY
 12/08/1997 - 11/30/1999 FY99: \$44,056 Total: \$84,101
Prin. Invest.: D PAP
Tech. Officer: GSFC/C JACKMAN
CASE Category: 13 - PHYSICS

NAG 5 6689 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2528
 THEORETICAL TECHNOLOGY RESEARCH FOR THE INTERNATIO NAL
 SOLAR TERRESTRIAL PHYSICS (ISTP) PROGRAM.
 12/01/1997 - 09/30/2000 FY99: \$357,000 Total: \$1,264,500
Prin. Invest.: M ABDALLA
Tech. Officer: GSFC/S CURTIS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6703 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2529
 PALEOBIOLOGIC STUDIES OF THE ANTIQUITY AND PRECAMB RIAN EVOLU-
 TION OF LIFE
 12/04/1997 - 09/30/1998 FY99: -\$104 Total: \$73,991
Prin. Invest.: J SCHOPF
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 6724 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2530
 INTEGRATING DISTRIBUTED OBJECT MANAGEMENT TECHNOLOGY INTO
 EOSDIS
 12/12/1997 – 08/31/1998 FY99: \$0 Total: \$354,600
Prin. Invest.: R MUNTZ
Tech. Officer: GSFC/R KREIDER
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 6965 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2531
 PICK-UP ION INSTABILITIES AT PLANETARY MAGNETOSPHERE
 03/03/1998 – 03/31/2000 FY99: \$60,743 Total: \$96,968
Prin. Invest.: R J STRANGEWAY
Tech. Officer: GSFC/D EVANS
CASE Category: 11 – ASTRONOMY

NAG 5 6975 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2532
 THE ROLE OF COMPANION STARS IN PLANETARY FORMATION
 03/25/1998 – 06/30/2001 FY99: \$68,067 Total: \$81,600
Prin. Invest.: A GHEZ
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7123 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2533
 LIGHT SCATTERING AND REMOTE SENSING OF CIRRUS CLOUDS USING
 MODIS CHANNELS
 04/16/1998 – 03/31/2000 FY99: \$62,000 Total: \$102,000
Prin. Invest.: K N LIU
Tech. Officer: GSFC/M D KING
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7207 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2534
 DEVELOPMENTAL GENES AND THE CAMBRIAN RADIATION
 04/08/1998 – 07/31/1999 FY99: \$113,000 Total: \$226,000
Prin. Invest.: D JACOBS
Tech. Officer: GSFC/M MEYER
CASE Category: 11 – ASTRONOMY

NAG 5 7315 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2535
 CONTINUED LONG-TERM MONITORING OF NGC 3516
 04/28/1998 – 04/30/2000 FY99: \$0 Total: \$10,375
Prin. Invest.: R EDELSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7321 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2536
 CALIBRATION OF MAGNETICALLY INDUCED SOLAR VELOCITY SIGNALS
 FOR GOLF INVESTIGATION
 06/25/1998 – 02/28/1999 FY99: -\$2 Total: \$76,329
Prin. Invest.: R ULRICH
Tech. Officer: GSFC/A POLAND
CASE Category: 13 – PHYSICS

NAG 5 7386 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2537
 AUTOMATED RECOGNITION & CHARACTERIZATION OF SOLAR ACTIVE
 REGIONS BASED ON SOHO/MDI IMAGES
 05/22/1998 – 04/30/1999 FY99: -\$150 Total: \$20,902
Prin. Invest.: J PAP
Tech. Officer: GSFC/L POLAND
CASE Category: 13 – PHYSICS

NAG 5 7555 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2538
 REAL-TIME FORECASTING AND RAPID POST-EVENT ASSESSMENT OF
 EROSIONAL AND DEPOSITIONAL FLOOD DAMAGE
 06/25/1998 – 08/31/2001 FY99: \$0 Total: \$330,915
Prin. Invest.: L C SMITH
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7721 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2539
 POLAR MAGNETIC FIELD EXPERIMENT
 09/23/1998 – 12/31/1999 FY99: \$25,000 Total: \$544,000
Prin. Invest.: C T RUSSELL
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 7738 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2540
 RADIATIVE TRANSFER AND REMOTE SENSING IN AEROSOL ATMOS-
 PHERE
 10/02/1998 – 09/30/1999 FY99: \$75,000 Total: \$75,000
Prin. Invest.: K LIU
Tech. Officer: GSFC/M I MISHCHENKO
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7899 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2541
 QUASI-CONTINUOUS ROSAT MONITORING OF THE EXTREME N ARROW-
 LINE SEYFERT 1 GALAXY IRAS 13224-3809 ADP 9
 01/03/1999 – 12/31/1999 FY99: \$38,000 Total: \$38,000
Prin. Invest.: R A EDELSON
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7907 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2542
 STUDY OF TOTAL SOLAR AND SPECTRAL IRRADIANCE VARIATIONS
 BASED ON THE SOHO/VIRGO AND MDI MEASUREMENTS
 12/04/1998 – 11/30/1999 FY99: \$94,987 Total: \$94,987
Prin. Invest.: J M PAP
Tech. Officer: GSFC/J GURMAN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 7924 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2543
 EVOLUTION OF DUST AROUND MAIN SEQUENCE STARS (LTSA - 98)
 01/06/1999 – 12/14/1999 FY99: \$65,005 Total: \$65,005
Prin. Invest.: M A JURA, NONE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7959 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2544
 THE GALILEAN MOONS OF JUPITER: INFERRING INTERNAL PROPERTIES
 OF NEW WORLDS FROM THEIR INTERACTIONS
 01/08/1999 – 11/30/1999 FY99: \$90,542 Total: \$90,542
Prin. Invest.: D G KIVELSON
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 – ASTRONOMY

NAG 5 7962 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2545
 DYNAMICS OF THE R=10-30 RE MAGNETOTAIL DURING GEOMAGNETIC
 DISTURBANCES
 12/23/1998 – 12/14/1999 FY99: \$81,000 Total: \$81,000
Prin. Invest.: L R LYONS
Tech. Officer: GSFC/L ZANETTI
CASE Category: 11 – ASTRONOMY

NAG 5 7995 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2546
 CALIBRATION AND COMPARISON BETWEEN MDI, GOLF, AND MT. WILSON
 DATA 11
 01/05/1999 - 12/31/1999 FY99: \$246,562 Total: \$246,562
Prin. Invest.: R K ULRICH
Tech. Officer: GSFC/J GURMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8050 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2547
 SOME STUDIES OF STRUCTURE AND DYNAMICS OF JUPITER'S MAGNETO-
 SPHERE
 01/15/1999 - 11/30/1999 FY99: \$77,200 Total: \$77,200
Prin. Invest.: D K KHURANA
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8055 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2548
 A GLOBAL MAGNETOHYDRODYNAMIC MODEL OF THE JOVIAN MAGNETO-
 SPHERE
 01/15/1999 - 01/31/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: R J WALKER
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8059 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2549
 MULTIPLE SCALE STRUCTURE OF AURORAL ARCS
 01/14/1999 - 01/31/2000 FY99: \$68,250 Total: \$68,250
Prin. Invest.: F V CORONITI
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 8060 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2550
 THE PHYSICAL NATURE OF THE ELECTRON CYCLOTRON MASE R
 INSTABILITY IN THE AKR SOURCE REGION
 01/14/1999 - 01/31/2000 FY99: \$58,832 Total: \$58,832
Prin. Invest.: P L PRITCHETT
Tech. Officer: GSFC/M MELLOTT
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8064 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2551
 JOVIAN SUBSTORMS: A STUDY OF PROCESSES LEADING TO TRANSIENT
 BEHAVIOR IN THE JOVIAN MAGNETOSPHERE
 01/11/1999 - 12/31/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: C T RUSSELL, NONE
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8065 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2552
 NON-ADIABATIC PLASMA PROCESSES IN THE JOVIAN MAGNETOSPHERE
 AND COUPLING TO THE ATMOSPHERE
 01/11/1999 - 06/30/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: D M THORNE
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8066 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2553
 ANALYSIS AND INTERPRETATION OF JOVIAN ATMOSPHERE AND SAT-
 ELLITE DATA FROM THE GALILEO MISSION
 01/12/1999 - 12/31/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: D SCHUBERT
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8074 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2554
 THEORETICAL TECHNOLOGY RESEARCH FOR ISTP/SOLARMAX
 01/14/1999 - 01/14/2000 FY99: \$70,000 Total: \$70,000
Prin. Invest.: M ASHOUR-ABDALLA, NONE
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 8085 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2555
 ELECTRON DYNAMICS IN THE MAGNETOTAIL
 01/21/1999 - 12/31/1999 FY99: \$76,357 Total: \$76,357
Prin. Invest.: D SCHRIVER
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 8132 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2556
 RESEARCH: "SUBSTORM EXPANSION PHASE DYNAMICS", 1-YEAR FUND-
 ING TO SUPPORT COMPLETION OF PI'S STUDY
 02/04/1999 - 05/31/2000 FY99: \$108,000 Total: \$108,000
Prin. Invest.: F CORONITI
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 8288 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2557
 NEXT GENERATION SPACE TELESCOPE (NGST) AD HOC SCIENCE WORK-
 ING GROUP (ASWG) ACTIVITY
 02/24/1999 - 02/29/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: M RICH
Tech. Officer: GSFC/E SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 8335 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2558
 EVOLUTION OF DUST AROUND YOUNG MAIN SEQUENCE STARS
 02/24/1999 - 02/29/2000 FY99: \$21,200 Total: \$21,200
Prin. Invest.: D JURA
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8439 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2559
 SUPPORT FOR THE 1999 PRECAMBRIAN PALEOBIOLOGICAL WORKSHOP
 "BRIDGING TWO WORLDS: FROM THE ARCHEAN TO
 04/01/1999 - 03/31/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: J SCHOPF, NONE
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 8447 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2560
 IMPLEMENTATION OF ALGORITHMS FOR HIGH SPEED AUTONOMOUS CCD
 DATA REDUCTION
 04/07/1999 - 05/03/1999 FY99: \$0 Total: \$0
Prin. Invest.: D L BUZASI
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 5 8470 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2561
 BIOMARKERS FOR MARS EXPLORATION
 05/06/1999 - 03/31/2000 FY99: \$84,287 Total: \$84,287
Prin. Invest.: D F KERRIDGE
Tech. Officer: GSFC/M MEYER
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 8507 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2562
 STUDY OF THE TERRESTRIAL EFFECTS OF SOLAR IRRADIANCE VARIATIONS FROM EUV TO INFRARED: A NEW APPROACH
 05/10/1999 - 04/30/2000 FY99: \$29,227 Total: \$29,227
Prin. Invest.: J M PAP
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 8530 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2563
 MINING LUNAR PROSPECTOR'S GRAVITY DATA FOR INSIGHTS INTO THE MECHANICAL AND THERMAL EVOLUTION OF THE
 06/15/1999 - 06/30/2000 FY99: \$25,000 Total: \$25,000
Prin. Invest.: G SCHUBERT
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8540 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2564
 PRIOR GRANT NAG5-3252 CONTINUATION OF MAP SCIENCE SUPPORT ACTIVITIES BEING IMPLEMENTED BY THE MAP
 08/19/1999 - 08/14/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: E L WRIGHT
Tech. Officer: GSFC/C BENNET
CASE Category: 11 - ASTRONOMY

NAG 5 8693 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2565
 BLACK HOLES IN EARLY TYPE GALAXIES: INCIDENCE, FORMATION AND EVOLUTION (LTSA 98)
 09/08/1999 - 09/14/2000 FY99: \$109,333 Total: \$109,333
Prin. Invest.: L FERRARESE *Prin. Invest.:* NONE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8694 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2566
 DECENTRALIZED ESTIMATION & CONTROL OF DISTRIBUTED SPACECRAFT
 07/29/1999 - 07/31/2000 FY99: \$125,634 Total: \$125,634
Prin. Invest.: J SPEYER
Tech. Officer: GSFC/J CARPENTER
CASE Category: 41 - AERONAUTICAL ENGINEERING

NAG 5 8812 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2567
 HIGH RESOLUTION SOLAR TRANSMISSION MEASUREMENTS FOR THE DETECTION OF AEROSOLS AND CLOUDS
 09/15/1999 - 09/30/2000 FY99: \$110,409 Total: \$110,409
Prin. Invest.: A ELDERING
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

NAG 8 1236 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2568
 OSTWALD RIPENING OF LIQUID & SOLID DROPLETS IN LIQUID METAL MATRICES
 05/17/1996 - 05/31/2000 FY99: \$0 Total: \$200,000
Prin. Invest.: A J ARDELL
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 814 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2569
 USE OF MICROGRAVITY
 08/01/1995 - 09/09/1999 FY99: \$0 Total: \$870,000
Prin. Invest.: E DIRKSEN
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIRONMENT)

NAG 9 970 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2570
 MOTOMIR RESISTIVE EXERCISE EQUIPMENT
 11/18/1997 - 09/14/1999 FY99: \$0 Total: \$62,000
Prin. Invest.: R EDGERTON
Tech. Officer: JSC/M C GRENISEN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1020 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2571
 GENESIS DISCOVERY MISSION
 07/16/1998 - 03/04/2002 FY99: \$66,400 Total: \$103,400
Prin. Invest.: K D MCKEEGAN
Tech. Officer: JSC/E K STANSBERRY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 1021 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2572
 GENERAL CIRCULATION OF THE SOUTHERN HEMISPHERE STRATOSPHERE
 05/01/1987 - 05/31/1998 FY99: -\$37 Total: \$872,566
Prin. Invest.: C R MECHOSO
Tech. Officer: HQ/R D MCPETERS, HQ/M J PRATHER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 1874 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2573
 DYNAMICAL STUDIES OF THE ATMOSPHERES OF VENUS, JUPITER, URANUS AND IO
 01/03/1990 - 09/30/1997 FY99: \$0 Total: \$459,341
Prin. Invest.: G SCHUBERT
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAGW 2147 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2574
 NAGW-2147/UNIV OF CA @ LOS ANGELES/PAEOBIOLOGIC STUDIES OF THE ANTIQUITY & PRECAMBIAN EVOLUTION
 07/13/1990 - 09/30/1997 FY99: -\$417 Total: \$509,114
Prin. Invest.: J W SCHOPF
Tech. Officer: HQ/J D RUMNEL, HQ/S W FOGLEMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 2270 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2575
 A SEARCH FOR BROWN DWARFS AND HIGH MASS PLANETS
 12/07/1990 - 10/31/1997 FY99: \$0 Total: \$280,800
Prin. Invest.: B M ZUCKERMAN
Tech. Officer: HQ/J A NUTH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3115 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2576
 NAGW-3115/UNIV CA/ISO KEY PROJECT: DUST DEBRIS AROUND SOLAR MASS STARS
 07/27/1992 - 09/30/1997 FY99: \$0 Total: \$544,819
Prin. Invest.: E E BECKLIN
Tech. Officer: HQ/L J CAROFF
CASE Category: 11 - ASTRONOMY

NAGW 3974 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2577
 A STUDY OF CURRENTS IN THE MIDDLE AND OUTER MAGNETOSPHERE
 05/10/1994 - 09/30/1997 FY99: -\$42 Total: \$157,458
 Prin. Invest.: C T RUSSELL
 Tech. Officer: HQ/E C WHIPPLE, HQ/J D BOHLIN
 CASE Category: 13 - PHYSICS

NAGW 4130 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2578
 RELATIONSHIP OF BURSTY BULK FLOW EVENTS AND SUBSTORMS
 09/21/1994 - 09/30/1997 FY99: -\$3 Total: \$57,797
 Prin. Invest.: F V CORONITI
 Tech. Officer: HQ/E C WHIPPLE, HQ/J D BOHLIN
 CASE Category: 13 - PHYSICS

NAGW 4327 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2579
 RESEARCH IN PLANETARY POLAR PROCESSES
 02/24/1995 - 09/30/1997 FY99: -\$78 Total: \$65,922
 Prin. Invest.: D PAIGE
 Tech. Officer: HQ/H BRINTON
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4541 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2580
 GLOBAL MHD SIMULATIONS OF MESOSCALE STRUCTURES AT THE MAGNETOSPHERIC BOUNDARY
 05/26/1995 - 04/30/1998 FY99: \$0 Total: \$120,000
 Prin. Invest.: J BERCHEM
 Tech. Officer: HQ/R A HOFFMAN, HQ/J D BOHLIN
 CASE Category: 13 - PHYSICS

NAGW 4543 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2581
 DEVELOPMENT OF A MODEL FOR THE NIGHT SIDE MAGNETOPAUSE USING GLOBAL SIMULATIONS
 05/26/1995 - 04/30/1998 FY99: \$0 Total: \$127,650
 Prin. Invest.: J RAEDER
 Tech. Officer: HQ/R A HOFFMAN, HQ/R A BOHLIN
 CASE Category: 13 - PHYSICS

NAGW 4553 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2582
 STUDIES OF THE INTRINSIC COMPLEXITIES OF MAGNETOTAIL ION DISTRIBUTIONS: THEORY AND OBSERVATION
 05/30/1995 - 04/30/1998 FY99: \$0 Total: \$165,300
 Prin. Invest.: M ASHOUR-ABDALLA, NONE
 Tech. Officer: HQ/R HOFFMAN
 CASE Category: 13 - PHYSICS

NAGW 4770 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2583
 IS THE HIGH MULTIPLICITY OF T TAURI STARS IN TAURUS TYPICAL? A POTENTIAL PROBLEM FOR PLANETARY FORMATION
 09/16/1995 - 06/30/1998 FY99: \$0 Total: \$79,503
 Prin. Invest.: A CHEZ
 Tech. Officer: HQ/P G ROGERS
 CASE Category: 11 - ASTRONOMY

NAGW 4840 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2584
 MODELLING WAVE DISTURBANCES FROM THE IMPACT OF COMET SHOEMAKER-LEVY 9 ON JUPITER: EFFECTS OF WATER CLOUDS
 10/06/1995 - 09/30/1997 FY99: -\$123 Total: \$73,372
 Prin. Invest.: G SCHUBERT, NONE
 Tech. Officer: HQ/E BARKER
 CASE Category: 11 - ASTRONOMY

NAGW 4844 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2585
 NEAR INFRARED SOLAR ORBIT TELESCOPE
 10/11/1995 - 06/30/1998 FY99: -\$254 Total: \$62,221
 Prin. Invest.: E L WRIGHT
 Tech. Officer: HQ/M KAPLAN, HQ/D W WEEDMAN
 CASE Category: 13 - PHYSICS

NAGW 4956 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2586
 SIMULATIONS OF THE EFFECTS OF PLANETARY WAVE OSCILLATIONS ON THERMOSPHERE AND IONOSPHERE USING A COUPLED MODEL
 03/26/1996 - 03/31/1998 FY99: -\$1 Total: \$59,951
 Prin. Invest.: R P TURCO
 Tech. Officer: HQ/M M MELLOTT
 CASE Category: 13 - PHYSICS

NAGW 5024 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2587
 THE PROPERTIES AND BEHAVIOR OF MARTIN CARBON DIOXIDE FROST
 04/11/1996 - 09/30/1997 FY99: \$240 Total: \$40,240
 Prin. Invest.: D A PAIGE
 Tech. Officer: HQ/H BRINTON, HQ/J RAHE
 CASE Category: 99 - MULTI-INTERDISCIPLINARY, OTHER

NAS 9 18773 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2588
 RELATIONSHIP OF LONG-TERM ELECTROMYOGRAPHIC ACTIVITY TO MUSCLE ATROPHY & PERFORMANCE
 10/27/1992 - 11/30/1997 FY99: \$0 Total: \$1,391,000
 Prin. Invest.: R EGGERTON
 Tech. Officer: JSC/A PLAZA
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIRONMENTAL)

NAS 9 19400 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2589
 FLIGHT EXPERIMENT/CORRELATION OF DISCONJUGATE EYE TORSION WITH THE TIME COURSE OF SPACE ADAPTATION SYNDROME
 07/31/1995 - 05/31/1999 FY99: \$0 Total: \$248,042
 Prin. Invest.: C MARKHAM
 Tech. Officer: JSC/A L LEE
 CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 1 264 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2590
 MODIFICATION OF THE UUV RADIATION PROGRAM AND DEVELOPMENT OF A NEW SOLAR RADIATION MODEL
 10/31/1997 - 10/31/1998 FY99: -\$1 Total: \$54,000
 Prin. Invest.: K N LIU
 Tech. Officer: LARC/T P CHARLOCK, LARC/B A WIELICKI
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 2 374 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2591
 "LABORATORY FOR FLIGHT-SYSTEMS RESEARCH"
 10/01/1987 - 07/30/1999 FY99: \$341,741 Total: \$11,358,773
 Prin. Invest.: A V BALAKRISHNAN
 Tech. Officer: DFRC/K W ILIFF, DFRC/R R MEYER
 CASE Category: 49 - ENGINEERING, OTHER

NCC 2 804 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2592
 "PSYCHOPHYSIOLOGY OF HUMANS IN SPACE"
 06/03/1993 - 05/31/1999 FY99: \$9,494 Total: \$973,360
 Prin. Invest.: P S COWINGS
 Tech. Officer: ARC/J P CONNALLY
 CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 1050 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2593
 ASTROBIOLOGY @ UCLA AN INTEGRATED MULTIDISCIPLINARY APPROACH
 TO RESEARCH & EDUCATION
 08/19/1998 - 06/30/2003 FY99: \$382,267 Total: \$547,267
Prin. Invest.: B RUNNEGAR
Tech. Officer: ARC/T E BUNCH
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 3 690 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2594
 ACOUSTICALLY FORCED CONDENSED PHASE FUEL COMBUSTION UNDER
 MICROGRAVITY CONDITIONS
 03/22/1999 - 12/29/2002 FY99: \$91,355 Total: \$91,355
Prin. Invest.: O I SMITH
Tech. Officer: GRC/K SACKSTEDER
CASE Category: 49 - ENGINEERING, OTHER

NCC 4 121 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2595
 FLIGHT SYSTEMS RESEARCH CENTER
 02/17/1999 - 09/30/1999 FY99: \$965,000 Total: \$965,000
Prin. Invest.: A V BALAKRISHNAN
Tech. Officer: SSC/K W ILLIFF, SSC/R R MEYER
CASE Category: 49 - ENGINEERING, OTHER

NCC 5 149 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2596
 GRAND CHALLENGE RESEARCH
 08/09/1996 - 12/31/1999 FY99: \$355,000 Total: \$2,000,000
Prin. Invest.: C MECHOSO
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 5 301 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2597
 EARTH PARTNERS' PRIVATE NETWORK
 04/03/1998 - 02/28/2001 FY99: \$728,200 Total: \$1,428,200
Prin. Invest.: R MUNTZ
Tech. Officer: GSFC/M MAIDEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 385 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2598
 REMOTE SENSING OF CIRRUS CLOUDS AND RADIATION EFFECTS IN THE
 EVOLUTION OF CIRRUS CLOUDS
 04/01/1999 - 04/14/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: K N LIU
Tech. Officer: GSFC/W LAU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 4 52406 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2599
 GSRP AUTOMATED INTERFACING IN MULTIDISCIPLINARY AEROSPACE
 06/18/1998 - 07/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: S N ATLURI
Tech. Officer: SSC/K GUPTA, SSC/L S VOELKER
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 30133 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2600
 REMOTE SENSING OF CIRRUS CLOUDS USING MODIS AIRBORNE SIMULA-
 TOR (MAS) CHANNELS
 06/24/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: K LIU
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30215 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2601
 INVESTIGATION OF AEROSOL/CLOUD INTERACTIONS USING A COUPLED
 HIGH-RESOLUTION DYNAMICS/MICROPHYSICS
 08/24/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R P TURCO
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50143 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2602
 SATELLITE DETECTION OF MESOSCALE AND SUB-MESOSCALE S AND
 THEIR EFFECTS ON PLANKTON DISTRIBUTIONS
 09/11/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: W M HAMNER
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50187 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2603
 A SEARCH FOR GIANT PLANETS ORBITING NEARBY STARS
 05/27/1998 - 06/30/2000 FY99: \$22,000 Total: \$43,625
Prin. Invest.: B ZUCKERMAN
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50202 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2604
 NEUROMUSCULAR AND ENDOCRINE FACTORS IN WEIGHTLESSNESS-
 INDUCED ATROPHY/
 07/02/1998 - 07/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: V EDGERTON
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50220 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2605
 HEALTH MGMT SYSTEM DESIGN & INTELLIGENT CONTROL OF FUTURE
 MINIATURE AUTONOMOUS SPACECRAFTS UTIL
 09/23/1998 - 09/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: P WANG, ESHAGHI
Tech. Officer: HQ/S MCGEE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52844 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2606
 GRADUATE STUDENT RESEARCH PROGRAM FELLOWSHIP
 08/22/1997 - 08/14/2000 FY99: \$0 Total: \$44,000
Prin. Invest.: M A ABDOU
Tech. Officer: MSFC/J DOWDY
CASE Category: 46 - MECHANICAL ENGR

NAG 5 3349 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2607
 DUST EMISSION FROM CLASS O PROTOSTARS IN THE SERPENS CLOUD
 CORE
 08/12/1996 - 08/14/1998 FY99: \$0 Total: \$18,000
Prin. Invest.: M A BARSONY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3656 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2608
 OSSE 511 KEV OBSERVATIONS AND MAPPING (\$15,000); CGGERED BATSE
 GAMMA RAY BURSTS (\$30,000);
 12/31/1996 - 12/31/1998 FY99: \$0 Total: \$90,001
Prin. Invest.: D D DIXON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 5116 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2609
 THE TIGRE INSTRUMENT FOR INTERMEDIATE - ENERGY GAMMA-RAY
 ASTRONOMY FROM 0.3 TO 100MEV
 04/09/1997 - 12/31/1999 FY99: \$349,428 Total: \$1,049,018
Prin. Invest.: A D ZYCH
Prin. Invest.: NONE
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5118 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2610
 AN ARCSECOND RESOLUTION: AXGAM
 04/09/1997 - 12/31/1999 FY99: \$200,000 Total: \$600,000
Prin. Invest.: O T TUMER
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5211 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2611
 ULDB COMPTON TELESCOPE MISSION ULDB COMPTON TELESCOPE MIS-
 SION
 09/17/1998 - 12/31/1999 FY99: \$0 Total: \$35,306
Prin. Invest.: A D ZYCHE
Tech. Officer: WFF/A B MERRITT
CASE Category: 11 - ASTRONOMY

NAG 5 6622 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2612
 WORKSHOP FOR CHARACTERIZATION & MEASUREMENT OF THE
 HYDRAULIC PROPERTIES OF UNSATURATE POROUS MEDIA
 11/20/1997 - 10/31/1998 FY99: \$0 Total: \$10,000
Prin. Invest.: W VAN GENUCHTEN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7205 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2613
 A DETAILED STUDY OF THE RECENTLY DISCOVERED ANNIHILATION FOUN-
 TAIN
 04/10/1998 - 03/31/1999 FY99: \$0 Total: \$12,599
Prin. Invest.: D D DIXON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7275 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2614
 GALACTIC DIFFUSE CONTINUUM MAPPING
 04/24/1998 - 04/30/1999 FY99: \$0 Total: \$8,899
Prin. Invest.: D D NIXON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7983 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2615
 OSSE OBSERVATIONS AND MAPPING OF 511 KEV EMISSION FROM THE
 GALACTIC CENTER REGION
 01/15/1999 - 01/14/2000 FY99: \$5,000 Total: \$5,000
Prin. Invest.: D D DIXON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8024 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2616
 OSSE MAPPING OF DIFFUSE 511 KEV AND CONTINUUM EMISSION IN THE
 GALACTIC PLANE
 01/12/1999 - 01/14/2000 FY99: \$5,501 Total: \$5,501
Prin. Invest.: D D DIXON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8026 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2617
 IMPROVED ANALYSIS OF THE DISTRIBUTION OF GALACTIC AL26
 01/12/1999 - 01/14/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: D D DIXON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8682 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2618
 SPACE-TIME DYNAMICS OF SOIL MOISTURE & TEMPERATURE -SCALE
 ISSUES
 07/15/1999 - 07/14/2000 FY99: \$91,334 Total: \$91,334
Prin. Invest.: B P MOHANTY
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1164 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2619
 MACRINIKEYKAR CRYSTAL GROWTH
 09/13/1995 - 01/31/1998 FY99: \$0 Total: \$401,257
Prin. Invest.: A J MALKIN
Tech. Officer: GSFC/M L PUSEY, GSFC/W W WITYEROW
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 4184 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2620
 NON-ENZYMATIC LOIGOMERIZATION MONONUCLEOTIDES USING NON-
 STANDARD OLIGONUCLEOTIDE TEMPLATES
 10/28/1994 - 06/30/1998 FY99: \$0 Total: \$180,000
Prin. Invest.: C SWITZER
Tech. Officer: HQ/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 5 98173 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2621
 GLAST INSTRUMENT TECHNOLOGY
 06/26/1998 - 02/15/1999 FY99: \$0 Total: \$45,000
Prin. Invest.: A D ZYCH
Tech. Officer: GSFC/M D JOSEPH
CASE Category: 11 - ASTRONOMY

NAG 1 1259 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2622
 A STUDY OF CLOUD RADIATIVE FORCING AND FEEDBACK - FDP
 04/19/1991 - 10/31/1999 FY99: \$1 Total: \$1,318,578
Prin. Invest.: V RAMANATHAN
Tech. Officer: LARC/B A WIELICKI, LARC/J W YOUNGBLOOD
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 1 1965 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2623
 SUCCESS DATA PROCESSING AND ANALYSIS
 09/05/1997 - 04/30/1999 FY99: \$0 Total: \$114,600
Prin. Invest.: F J VALERO
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2044 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2624
 RADIATIVE CHARACTERISTICS OF THE SURFACE & CLOUDS IN THE ARCTIC
 USING RESEARCH AIRCRAFT—NRA-94-MTPE-04
 04/03/1998 - 03/31/2000 FY99: \$92,000 Total: \$263,436
Prin. Invest.: F P VALERO, S K POPE, P J FLATAU
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1313 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2625
 THE DEVELOPMENT OF PILOT EXPERTISE IN THE AIRBUS A 320 AIRCRAFT
 04/01/1999 - 01/31/2000 FY99: \$93,352 Total: \$93,352
Prin. Invest.: E L HUTCHINS
Tech. Officer: ARC/S M CASNER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1376 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2626
 EVOLUTION OF NEURAL CREST & PLACODES: AMPHIOXUS A S A MODEL
 FOR THE ANCESTROOF THE VERTEBRATES
 08/17/1999 - 12/31/1999 FY99: \$37,304 Total: \$37,304
Prin. Invest.: L Z HOLLAND
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1888 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2627
 MATERIAL INSTABILITIES IN PARTICULATE SYSTEMS: UC SD 95-647R
 05/31/1996 - 06/30/2000 FY99: \$80,000 Total: \$243,000
Prin. Invest.: J D GODDARD
Tech. Officer: GRC/M E HILL
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2117 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2628
 DYNAMICS OF ACCELERATED INTERFACES: PARAMETRIC EXC ITATION
 AND FLUID SLOSHINGIN CLOSED CONTAINERS A
 01/28/1998 - 12/18/2000 FY99: \$58,000 Total: \$131,000
Prin. Invest.: C POZRIKIDIS
Tech. Officer: GRC/J R SKARDIA
CASE Category: 13 - PHYSICS

NAG 3 2161 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2629
 HIGH-PRESSURE COMBUSTION OF BINARY FUEL SPRAYS HIGH-PRES-
 SURE COMBUSTION OF BINARY FUEL SPRAYS
 04/30/1998 - 12/25/1998 FY99: \$0 Total: \$28,000
Prin. Invest.: F WILLIAMS
Tech. Officer: GRC/D DIETRICH
CASE Category: 46 - MECHANICAL ENGR

NAG 5 1630 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2630
 GURANTEED TIME OBSERVATIONS SUPPORT FOR FAINT OBJE CT SPEC-
 TROGRAPH (FOS) ON HST
 06/24/1991 - 10/31/1998 FY99: \$0 Total: \$15,848,223
Prin. Invest.: R HARMS
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 - ASTRONOMY

NAG 5 1858 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2631
 GUARANTEED TIME OBSERVATIONS OF THE HIGH RESOLUTIO N/SPEC-
 TROGRAPH OF THE HUBBLE SPACE TELESCOPE
 01/03/1992 - 11/14/1998 FY99: \$0 Total: \$827,640
Prin. Invest.: E BEAVER
Tech. Officer: GSFC/A SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 1910 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2632
 SPACE GEODETIC DETECTORS OF TECCTONIC SIGNALS
 02/21/1992 - 09/30/1998 FY99: \$0 Total: \$291,968
Prin. Invest.: J B MINSTER
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 1917 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2633
 PERMANENT GPS GEODETIC ARRAY IN SOUTHERN CALIFORNIA
 04/20/1992 - 10/31/1997 FY99: \$0 Total: \$616,061
Prin. Invest.: Y BOCK
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 2517 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2634
 THE NATURE OF X-RAY EMISSION FROM NARROW-LINE RADIO GALAXIES
 02/21/1994 - 03/14/1998 FY99: \$0 Total: \$41,339
Prin. Invest.: R D COHEN
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2811 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2635
 THEORETICAL STUDIES IN GAMMA-RAY ASTROPHYSICS
 12/08/1994 - 10/31/1998 FY99: \$0 Total: \$207,000
Prin. Invest.: R E LINGENFELTER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2967 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2636
 MAIN GEOMAGNETIC FIELD MODELS FROM ORSTED AND MAGSAT DATA
 VIA A RIGOROUS GENERAL INVERSE THEORY
 06/13/1995 - 12/31/1998 FY99: -\$1 Total: \$120,908
Prin. Invest.: G E BACKUS
Tech. Officer: GSFC/P T TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 2968 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2637
 CORE AND CRUSTAL GEOMAGNETIC FIELD MONITORING USING ORSTED
 AND MAGSAT DATA
 06/13/1995 - 06/30/1999 FY99: \$0 Total: \$170,000
Prin. Invest.: C CONSTABLE
Tech. Officer: GSFC/P TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3062 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2638
 THE HISTORY OF BARYONS
 09/22/1995 - 09/14/1998 FY99: \$0 Total: \$210,000
Prin. Invest.: G M FULLER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3115 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2639
 THE SEARCH FOR ABSORPTION LINES IN GAMMA RAY BURST SPECTRA
 10/18/1995 - 10/31/1997 FY99: -\$205 Total: \$59,795
Prin. Invest.: D L BAND
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3234 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2640
 CHEMICAL ABUNDANCES AND EVOLUTION IN QUASARS AND ACTIVE
 GALACTIC NUCLEI
 05/15/1996 - 05/14/1999 FY99: \$95,000 Total: \$245,000
Prin. Invest.: F W HAMANN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3237 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2641
 COSMOLOGICAL CENSUS OF BARYON DENSITY, IONIZATION AND ABUNDANCES
 05/21/1996 - 05/31/2000 FY99: \$80,000 Total: \$320,000
Prin. Invest.: D R TYTLER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3272 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2642
 TIMING AND BROAD BAND PULSE PHASE RESOLVED SPECTROSCOPY OF VELA X-1: CONFIRMATION OF CYCLOTRON ...
 07/02/1996 - 12/31/1998 FY99: \$0 Total: \$29,703
Prin. Invest.: D GRUBER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3273 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2643
 SURVEY OF SOFT GAMMA RAY REPEATERS
 07/02/1996 - 12/31/1998 FY99: \$0 Total: \$46,980
Prin. Invest.: R ROTHSCCHILD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3274 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2644
 HARD X-RAY CONTINUA OF CYGNUS A AND IC5063: A TEST OF THE OBSCURATION/REFLECTION HYPOTHESIS FOR ...
 07/02/1996 - 12/31/1999 FY99: \$0 Total: \$39,832
Prin. Invest.: P BLANCO
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3275 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2645
 XTE SEARCH FOR 44Ti DECAY LINES FROM YOUNG SUPERNOVA REMNANTS CAS A AND TYCHO
 07/15/1996 - 01/14/1998 FY99: -\$3 Total: \$23,097
Prin. Invest.: R LINGENFELTER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3381 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2646
 PCA/HEXTE OBSERVATIONS OF COMA AND A2319
 08/30/1996 - 02/28/1998 FY99: -\$365 Total: \$22,260
Prin. Invest.: Y RAPHAELI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3398 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2647
 A STUDY OF FOUR DISTANT, EXTREMELY X-RAY LUMINOUS GALAXY CLUSTERS
 09/09/1996 - 03/14/1999 FY99: \$0 Total: \$16,069
Prin. Invest.: W TUCKER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3450 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2648
 ANALYSIS OF SKY FLUCTUATIONS FROM HEXTE
 10/07/1996 - 10/31/1999 FY99: -\$1,117 Total: \$36,183
Prin. Invest.: D GRUBER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3528 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2649
 ASSESSMENT OF CLIMATIC AND ANTHROPOGENIC IMPACTS ON CYCLE CONSTRAINED BY ATMOSPHERIC MEASUREMENTS AND
 11/18/1996 - 03/31/2000 FY99: \$61,000 Total: \$549,000
Prin. Invest.: D D KEELING
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3668 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2650
 ANALYSIS OF THE NEW ORION GAMMA-RAY DATA
 12/31/1996 - 12/31/1998 FY99: \$0 Total: \$44,968
Prin. Invest.: R E LINGENFELTER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3685 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2651
 GINGA GAMMA-RAY BURST LINE OCCURRENCE
 01/08/1997 - 01/14/1998 FY99: \$0 Total: \$5,000
Prin. Invest.: D L BAND
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3742 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2652
 PULMONARY DEPOSITION OF AEROSOLS IN MICROGRAVITY
 03/17/1997 - 02/14/2000 FY99: \$0 Total: \$234,936
Prin. Invest.: K PRISK
Tech. Officer: GSFC/F M SULZMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3781 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2653
 THE SOLAR WIND INTERACTION WITH COMETS AND OTHER N
 02/21/1997 - 02/28/1998 FY99: -\$748 Total: \$76,752
Prin. Invest.: D MENDIS
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3810 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2654
 ACCRETION PHYSICS IN THE NEW ASYNCHRONOUS AMHERST
 01/14/1997 - 07/14/1999 FY99: \$0 Total: \$4,642
Prin. Invest.: R ROTHSCCHILD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3944 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2655
 DEVELOPMENT OF A PIXON-BASED IMAGE RECONSTRUCTION USER COMMUNITY
 03/04/1997 - 02/29/2000 FY99: \$80,000 Total: \$335,000
Prin. Invest.: D C PUETTER
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4023 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2656
 ADVANCED GLOBAL ATMOSPHERIC GASES EXPERIMENT (AGAG)
 03/25/1997 - 01/31/2000 FY99: \$422,603 Total: \$1,385,761
Prin. Invest.: R F WEISS
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4145 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2657
 ISOTOPIC, CHEMICAL AND MINERALOGICAL INVESTIGATION MATERIALS
 03/25/1997 - 11/30/1999 FY99: \$0 Total: \$620,118
Prin. Invest.: R LUGMAIR
Tech. Officer: HQ/J BOYCE
CASE Category: 12 - CHEMISTRY

NAG 5 4284 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2658
 THE ORION PHENOMENON: PARTICLE FLUENCES IN THE SO
 04/01/1997 - 02/29/2000 FY99: \$33,333 Total: \$100,000
Prin. Invest.: D MARTI
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4410 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2659
 MONITORING OBSERVATIONS OF BLACK HOLE CANDIDATES 1 GRS
 1758-258
 05/21/1997 - 05/14/1999 FY99: \$0 Total: \$9,583
Prin. Invest.: W HEINDL
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4417 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2660
 STUDIES OF LONG PERIOD VARIABILITY IN NEUTRON STAR
 05/01/1997 - 04/30/1998 FY99: \$0 Total: \$8,900
Prin. Invest.: W HEINDL
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4468 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2661
 INTERACTION OF THE SOLAR WIND WITH PLANETARY BOW S OF NON-
 LINEAR STRUCTURES
 06/02/1997 - 05/31/2000 FY99: \$75,833 Total: \$175,000
Prin. Invest.: D I SHEVCHENKO
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4543 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2662
 FRAGMENTARY SOLAR SYSTEM HISTORY
 05/05/1997 - 12/31/1999 FY99: \$21,667 Total: \$260,224
Prin. Invest.: D MARTI
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4546 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2663
 NASA SPECIALIZED CENTER OF RESEARCH AND TRAINING I THE CHEM-
 ISTRY OF EARLY SELF-REPLICATING SYSTEMS
 05/06/1997 - 03/31/2000 FY99: \$980,000 Total: \$2,476,167
Prin. Invest.: P L BADA, NONE
Tech. Officer: HQ/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4563 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2664
 PREBIOTIC EVOLUTION OF NITROGEN COMPOUNDS
 05/29/1997 - 12/31/1999 FY99: \$114,333 Total: \$290,000
Prin. Invest.: D ARRHENIUS
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4571 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2665
 ANTARCTIC SPACE ANALOG PROGRAM
 06/23/1997 - 12/31/1999 FY99: \$0 Total: \$96,313
Prin. Invest.: L A PALINKAS
Tech. Officer: GSFC/M SHEPANAK
CASE Category: 11 - ASTRONOMY

NAG 5 4574 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2666
 METEORITIC SULFUR ISOTOPIC ANALYSIS
 07/07/1997 - 02/29/2000 FY99: \$50,333 Total: \$102,000
Prin. Invest.: D H THIEMENS
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4621 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2667
 SPECTRAL AND DYNAMICAL SIGNATURES OF BLACK HOLE HI
 05/21/1997 - 05/31/1999 FY99: \$0 Total: \$7,052
Prin. Invest.: W HEINDL
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4622 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2668
 XTE OBSERVATION OF THE TYCHO SUPERNOVA REMNANT
 05/21/1997 - 05/31/1999 FY99: \$0 Total: \$5,844
Prin. Invest.: P BLANCO
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4623 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2669
 PCA/HEXTE OBSERVATIONS OF NGC253 AND M82
 05/21/1997 - 05/31/1999 FY99: \$0 Total: \$24,355
Prin. Invest.: Y REPHAELI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4648 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2670
 MICROGRAVITY IN VITRO MODEL OF BONE: FLOW EFFECTS
 06/11/1997 - 05/31/2000 FY99: \$147,519 Total: \$327,938
Prin. Invest.: J A FRANGOS
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4658 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2671
 THEORETICAL STUDIES OF MAGNETIC RECONNECTION
 06/09/1997 - 05/14/2000 FY99: \$128,075 Total: \$243,248
Prin. Invest.: D B QUEST
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4659 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2672
 ORGANIC COMPONENTS OF COMETARY DUST
 05/30/1997 - 03/31/1999 FY99: \$47,000 Total: \$94,208
Prin. Invest.: D N FOMENKOVA
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4671 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2673
 SURFACE CHEMICAL COMPOSITION DETERMINATION FROM TH EXPERI-
 MENT
 06/06/1997 - 05/31/1999 FY99: \$0 Total: \$6,697
 Prin. Invest.: D R ARNOLD
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4775 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2674
 AN INTEGRATED SYSTEM FOR WATER BUDGET CLOSURE OVER MASS: A
 TRMM VALIDATION EFFORT
 07/15/1997 - 06/30/2000 FY99: \$44,000 Total: \$129,000
 Prin. Invest.: J O ROADS
 Tech. Officer: GSFC/O W THIELE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4798 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2675
 ANALYSIS OF SKY FLUCTUATIONS FROM HEXTE II
 06/23/1997 - 06/30/1998 FY99: -\$470 Total: \$28,112
 Prin. Invest.: D GRUBER
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 4937 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2676
 AMINO ACIDS AND OTHER ORGANIC COMPONENTS IN ANTARC
 06/23/1997 - 05/31/2000 FY99: \$23,333 Total: \$90,000
 Prin. Invest.: J L BADA
 Tech. Officer: GSFC/J M BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4938 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2677
 MICRO-DETECTION SYSTEM FOR DETERMINATION OF THE BI OF AMINO
 ACIDS
 06/23/1997 - 05/31/2000 FY99: \$52,083 Total: \$130,000
 Prin. Invest.: P L BADA
 Tech. Officer: GSFC/B CAMPBELL
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4948 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2678
 ISOTOPIC FRACTIONATION PROCESSES DURING PRE-SOLAR
 06/23/1997 - 04/30/2000 FY99: \$45,900 Total: \$115,900
 Prin. Invest.: D H THIEMENS
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 5111 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2679
 BALLOON-BORNE HIGH ENERGY X-RAY SPECTROMETER (HEXIS) BASED
 ON CZT TECHNOLOGY
 04/07/1997 - 10/31/1999 FY99: \$355,000 Total: \$1,072,750
 Prin. Invest.: J L MATTESON
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
 CASE Category: 13 - PHYSICS

NAG 5 5176 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2680
 GLOBAL BATHYMETRIC PREDICTION FOR OCEAN MODELING A
 07/17/1997 - 07/14/2000 FY99: \$19,000 Total: \$122,303
 Prin. Invest.: D T SANDWELL
 Tech. Officer: GSFC/H V FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 5217 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2681
 LABORATORY STUDY OF WATER SURFACE ROUGHNESS GENERATED BY
 WAVE CURRENT P.I. DR. KLINKE
 12/10/1998 - 06/30/1999 FY99: \$8,807 Total: \$8,807
 Prin. Invest.: D KLINKE
 Tech. Officer: GSFC/S LONG
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 6135 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2682
 VALIDATING THE USEFULNESS OF THE COMBINED GMS & GO FOR LONG-
 TERM GLOBAL CLIMATE CHANGE STUDIES
 08/13/1997 - 06/30/2000 FY99: \$150,000 Total: \$485,000
 Prin. Invest.: J J SIMPSON
 Tech. Officer: GSFC/J C DODGE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6149 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2683
 OCEAN TIDE LOADING COMPUTATION
 08/21/1997 - 08/31/2000 FY99: \$14,741 Total: \$41,810
 Prin. Invest.: D C AGNEW
 Tech. Officer: GSFC/H V FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6150 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2684
 SEAFLOOR GEODETIC MONITORING USING GPS AND ACOUSTI ATION TO
 NATURAL HAZARDS ON THE SE FLANK OF HAWAI
 08/21/1997 - 08/31/2000 FY99: \$44,000 Total: \$393,757
 Prin. Invest.: J B RAND
 Tech. Officer: GSFC/H V FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6179 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2685
 CONTINUOUS REMOTE MEASUREMENTS OF ATMOSPHERIC O2 C RELA-
 TION TO INTERANNUAL VARIATIONS IN BIOLOGICAL
 08/19/1997 - 08/14/2000 FY99: \$55,000 Total: \$342,349
 Prin. Invest.: R KEELING
 Tech. Officer: GSFC/J A YODER
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 6202 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2686
 EFFECTS OF WHITECAPS ON SATELLITE-DERIVED OCEAN COLOR
 10/02/1997 - 06/30/2000 FY99: \$86,000 Total: \$386,000
 Prin. Invest.: R FROUIN
 Tech. Officer: GSFC/J A YODER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6212 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2687
 CORONAL VELOCITY DETERMINATION USING TWO-DIMENSION TECH-
 NIQUE
 08/18/1997 - 06/14/1998 FY99: -\$10 Total: \$80,077
 Prin. Invest.: D V JACKSON
 Tech. Officer: GSFC/W J WAGNER
 CASE Category: 13 - PHYSICS

NAG 5 6334 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2688
 RXTE SEARCH FOR 44Ti DECAY LINES FROM THE CAS A SUPERNOVA REM-
 NANT
 10/02/1997 - 09/30/1998 FY99: -\$4 Total: \$19,071
 Prin. Invest.: R LINGENFELTER
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 6375 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2699
 BIOGEOCHEMICAL RESPONSE TO MESOSCALE PHYSICAL FORC INQ IN
 THE CALIFORNIA CURRENT SYSTEM
 10/03/1997 - 09/30/2000 FY99: \$20,000 Total: \$379,952
Prin. Invest.: P MILLER
Tech. Officer: GSFC/J A YODER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6414 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2690
 MODELING UV-B EFFECTS ON PRIMARY PRODUCTION THROU HOUT THE
 SOUTHERNOCEAN USING MULTI-SENSOR SA
 10/29/1997 - 10/31/2000 FY99: \$146,421 Total: \$396,868
Prin. Invest.: D LUBIN
Tech. Officer: GSFC/K ARRIGO
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 5 6466 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2691
 OPTICAL AND ANCILLARY MEASUREMENTS AT HIGH LATITUD ES IN SUP-
 PORT OF THE MODIS OCEAN VALIDATION
 11/04/1997 - 09/30/2000 FY99: -\$27,773 Total: \$131,644
Prin. Invest.: D STRAMSKI
Tech. Officer: GSFC/D STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6475 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2692
 SOLAR WIND MODELING FROM HELIOSPHERIC MISSIONS IN SITU DATA
 AND EARTH-BASED REMOTE SENSING OBSERVATI
 11/13/1997 - 10/31/1999 FY99: \$42,000 Total: \$84,000
Prin. Invest.: B JACKSON
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6497 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2693
 PREDICTABILITY OF THE CALIFORNIA CURRENT SYSTEM
 10/08/1997 - 10/14/2000 FY99: \$47,295 Total: \$491,313
Prin. Invest.: D MILLER
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6550 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2694
 PRODUCTION, DISTRIBUTION AND EVOLUTION OF RADIOACTIVE NUCLEI
 11/17/1997 - 09/30/1998 FY99: -\$9,438 Total: \$41,482
Prin. Invest.: R LINGENFELTER, F TIMMES
Tech. Officer: GSFC/J P NORRIS, GSFC/N GEHRELS
CASE Category: 11 - ASTRONOMY

NAG 5 6559 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2695
 SEASONAL TO DECADAL-SCALE VARIABILITY IN SATELLITE OCEAN
 COLOR AND SEA SURFACE TEMPERATURE FOR THE
 10/27/1997 - 10/31/2000 FY99: \$66,180 Total: \$241,860
Prin. Invest.: B MITCHELL
Tech. Officer: GSFC/J YODER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6595 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2696
 EARTH REMOTE SENSING CENTER OF EXCELLENCE AT SCRIP PS INSTITU-
 TION OF OCEANOGRAPHY
 12/15/1997 - 09/30/1999 FY99: \$0 Total: \$352,528
Prin. Invest.: G MITCHELL
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6668 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2697
 SOUTHERN OCEAN SEASONAL NET PRODUCTION FROM ATMOSP HERE
 AND OCEAN DATASETS
 11/26/1997 - 12/31/1999 FY99: \$101,985 Total: \$204,732
Prin. Invest.: R F KEELING
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6743 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2698
 THE SPECTRAL EVOLUTION OF GAMMA-RAY BURST
 01/12/1998 - 01/14/1999 FY99: -\$11 Total: \$16,289
Prin. Invest.: D BAND
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6931 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2699
 EQUATOR-S: MISSION OPERATIONS & DATA ANALYSIS PHASE
 02/02/1998 - 01/31/2000 FY99: \$24,000 Total: \$120,202
Prin. Invest.: C E MCILWAIN
Tech. Officer: GSFC/M HESSE
CASE Category: 13 - PHYSICS

NAG 5 6947 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2700
 NUMERICAL AND ANALYTICAL STUDIES OF THE SHOCKED SO LAR WIND
 INTERACTION WITH THE DAYSIDE MANTLE OF V
 02/26/1998 - 03/31/2000 FY99: \$77,343 Total: \$160,575
Prin. Invest.: K QUEST
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 7000 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2701
 HIGH RESOLUTION STUDY OF THE X-RAY TURN-ON IN HER X-1
 02/06/1998 - 02/14/2000 FY99: \$0 Total: \$14,739
Prin. Invest.: D GRUBER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7023 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2702
 USING 3C273 TO CROSS-CALIBRATE XTE, ASCA AND SAXXTE PROPOSAL -
 AO1
 02/12/1998 - 02/14/2000 FY99: \$0 Total: \$6,748
Prin. Invest.: P BLANCO
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7045 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2703
 THEORETICAL STUDIES IN COSMIC RAY AND GAMMA RAY AS TROPHYSICS
 AND LIGHT ELEMENT NUCLEOSYNTHESIS -
 03/18/1998 - 02/29/2000 FY99: \$63,977 Total: \$124,272
Prin. Invest.: R E LINGENFELTER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7096 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2704
 ANOMALOUS HEAT BUDGETS IN INTERIOR PACIFIC OCEAN ON SEASONAL
 TO INTERANNUAL TIMESCALES
 05/27/1998 - 12/31/1999 FY99: \$84,000 Total: \$204,732
Prin. Invest.: W WHITE
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 33 - OCEANOGRAPHY

NAG 5 7100 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2705
 OPTICAL MEASUREMENTS AND MODELING TO ESTIMATE CONCENTRATIONS AND FLUXES OF ORGANIC MATTER IN THE SOLAR WIND
 06/04/1998 - 05/31/2000 FY99: \$175,500 Total: \$411,455
 Prin. Invest.: D STRAMSKI
 Tech. Officer: GSFC/J W CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7119 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2706
 ANALYSIS OF SKY FLUCTUATIONS FROM HEXTE III; EXAMINATION OF THE CYCLOTRON LINES IN THE SPECTRUM OF
 04/16/1998 - 03/31/2000 FY99: \$0 Total: \$26,128
 Prin. Invest.: D E GRIBER
 Tech. Officer: GSFC/K SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7277 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2707
 XTE PROPOSAL - THE POWER OF SS433'S JETS
 04/15/1998 - 04/14/1999 FY99: \$0 Total: \$7,500
 Prin. Invest.: D BAND
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7295 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2708
 CORONAL RECONSTRUCTION USING LASCO AND UVCS OBSERVATIONS
 04/13/1998 - 10/31/1999 FY99: \$0 Total: \$80,000
 Prin. Invest.: P HICK
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 7332 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2709
 HIGH ENERGY SPECTRA AND VARIABILITY OF LOW REDSHIFT AGN: NARROW LINE X-RAY GALAXIES.
 04/24/1998 - 06/30/2000 FY99: \$0 Total: \$9,323
 Prin. Invest.: P R BLANCO
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7362 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2710
 ASCA PROPOSAL - ASCA AND HST OBSERVATIONS OF BL LA C 0236+164 AND THE INTERVENING SYSTEM
 05/05/1998 - 04/30/2000 FY99: \$0 Total: \$14,000
 Prin. Invest.: R D COHEN
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 7400 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2711
 A HARD X-RAY SPECTRUM OF THE HIDDEN QUASAR IN THE NARROW LINE RADIOGALAXY 3C321
 05/13/1998 - 05/31/2000 FY99: \$0 Total: \$15,100
 Prin. Invest.: R COHEN
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 7440 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2712
 XTE PROPOSAL (30183) CONFIRMATION OF THE TWO GAMMA-RAY SPECTRAL STATES OF GRS1915+105
 06/02/1998 - 06/30/1999 FY99: \$0 Total: \$9,063
 Prin. Invest.: W A HEINDL
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7568 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2713
 016ARD X-RAY SPECTRUM OF THE HIDDEN QUASAR IN THE NARROW LINE RADIOGALAXY 3C321
 07/09/1998 - 07/31/1999 FY99: \$0 Total: \$0
 Prin. Invest.: R COHEN
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 7612 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2714
 IMPROVED SPECTRAL CHARACTERIZATION OF THE GEOMAGNETIC FIELD (SENH98-0124)
 07/24/1998 - 01/31/2000 FY99: \$75,000 Total: \$112,000
 Prin. Invest.: R L PARKER Prin. Invest.: NONE
 Tech. Officer: GSFC/H B FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7614 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2715
 FUNDING FOR "EARTH CONDUCTIVITY FROM SATELLITE MAGNETIC DATA" (SENH98-0123)
 07/24/1998 - 01/14/2000 FY99: \$85,000 Total: \$127,000
 Prin. Invest.: C G CONSTABLE
 Tech. Officer: GSFC/H V FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7637 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2716
 CO2 BUDGET AND ATMOSPHERIC RECTIFICATION OVER NORTH AMERICA (CO2BAR)
 11/30/1998 - 11/30/2001 FY99: \$45,000 Total: \$45,000
 Prin. Invest.: R F KEELING
 Tech. Officer: GSFC/D E WICKLANS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7643 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2717
 XTE PROPOSAL - (20102) SS 433' HIGH ENERGY SPECTRUM
 08/26/1998 - 08/31/1999 FY99: \$0 Total: \$24,672
 Prin. Invest.: D BAND
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7653 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2718
 QUANTITATIVE ASSESSMENT OF THE INTEGRATED RESPONSE IN GLOBAL HEAT AND MOISTURE BUDGETS TO CHANGING
 08/25/1998 - 08/31/2001 FY99: \$70,000 Total: \$140,000
 Prin. Invest.: W WHITE
 Tech. Officer: HQ/D EVANS
 CASE Category: 11 - ASTRONOMY

NAG 5 7836 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2719
 CORONAL SPEEDS DETERMINED FROM CORRELATION TECHNIQUES APPLIED TO LASCO IMAGES
 12/14/1998 - 12/14/1999 FY99: \$80,000 Total: \$80,000
 Prin. Invest.: B V JACKSON
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7887 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2720
 SPECTRAL TESTS OF THE HOMOGENEITY OF BRIGHT GRBS
 12/02/1998 - 11/30/1999 FY99: \$5,000 Total: \$5,000
 Prin. Invest.: D L BAND
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7896 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2721
 THE BROAD BAND SPECTRA OF COMPTON-THIN SEYFERT 2 G ALAXIES
 WITH BEPPPOSAX ADP 98
 12/07/1998 - 12/14/1999 FY99: \$10,472 Total: \$10,472
Prin. Invest.: P R BLANCO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7975 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2722
 SPECTRAL ANALYSIS OF GAMMA-RAY BURSTS
 01/03/1999 - 06/30/1999 FY99: \$5,999 Total: \$5,999
Prin. Invest.: D L BAND
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8167 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2723
 FRAGMENTARY SOLAR SYSTEM HISTORY
 02/10/1999 - 01/31/2000 FY99: \$120,000 Total: \$120,000
Prin. Invest.: D MARTI
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8170 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2724
 UV-VISIBLE SPECTROSCOPIC METHODS AND MODELS FOR AS SESSMENT
 AND MONITOR- ING OF HARMFUL ALGAL BLOOMS
 02/16/1999 - 01/31/2000 FY99: \$82,715 Total: \$82,715
Prin. Invest.: B G MITCHELL
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8172 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2725
 ISOTOPIC, CHEMICAL AND MINERALOGICAL INVESTIGATION S OF
 EXTRATERRESTRIAL MATERIALS
 02/24/1999 - 02/28/2000 FY99: \$220,000 Total: \$220,000
Prin. Invest.: G W LUNGMAIR
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8180 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2726
 ADVANCED GLOBAL ATMOSPHERIC GASES EXPERIMENT (AGAG E)
 02/12/1999 - 12/31/1999 FY99: \$93,338 Total: \$93,338
Prin. Invest.: R F WEISS
Tech. Officer: GSFC/P DECOLA
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8252 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2727
 ANTARCTIC ULTRAVIOLET RADIATION CLIMATOLOGY FROM THE TOTAL
 ZONE MAPPING SPECTROMETER
 02/19/1999 - 12/31/1999 FY99: \$95,000 Total: \$95,000
Prin. Invest.: D LUBIN
Tech. Officer: GSFC/J R HERMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8272 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2728
 A SEARCH FOR EXTRASOLAR PLANETS IN OPEN CLUSTERS
 03/05/1999 - 02/28/2000 FY99: \$49,400 Total: \$49,400
Prin. Invest.: D GUIRRENBAC
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8292 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2729
 SEASONAL ATMOSPHERIC AND OCEANIC PREDICTIONS
 02/25/1999 - 02/29/2000 FY99: \$140,000 Total: \$140,000
Prin. Invest.: J O ROADS
Tech. Officer: GSFC/M REINECKER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8322 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2730
 BAYESIAN HIERARCHICAL AIR-SEA INTERACTION MODELLIN G: APPLICA-
 TIONTO THE LABRADOR SEA
 04/13/1999 - 05/31/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: P NILER
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8351 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2731
 THE APPLICATION OF JASON-1 MEASUREMENTS TO ESTIMAT E THE
 GLOBAL NEARSURFACE OCEAN CIRCULATION F
 03/01/1999 - 03/31/2000 FY99: \$150,000 Total: \$150,000
Prin. Invest.: P P NILER
Tech. Officer: GSFC/C KOBLINSKY
CASE Category: 33 - OCEANOGRAPHY

NAG 5 8498 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2732
 THE HIGH ENERGY X-RAY IMAGING SURVEY (HEXIS)
 05/27/1999 - 05/31/2000 FY99: \$484,881 Total: \$484,881
Prin. Invest.: R E ROTHSCILD
Tech. Officer: GSFC/L KALUZIENSKI
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 8504 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2733
 RECONSTRUCTION OF THE PLASMA DISTRIBUTION IN CORON A AND
 HELIOSPHERER
 05/11/1999 - 04/30/2000 FY99: \$43,349 Total: \$43,349
Prin. Invest.: B V JACKSON
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 8551 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2734
 ORGANIC CONSTITUENTS OF SHORT-PERIOD COMETS
 06/04/1999 - 05/31/2000 FY99: \$74,379 Total: \$74,379
Prin. Invest.: M N FOMENKOVA
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 8610 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2735
 ANALYSIS & INTERPRETATION OF LUNAR PROSPECTOR GRS/ NS DATA
 06/10/1999 - 06/30/2000 FY99: \$15,000 Total: \$15,000
Prin. Invest.: J R ARNOLD
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8623 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2736
 NUMERICAL CLIMATE OBSERVING NETWORK DESIGN STUDY
 08/09/1999 - 08/31/2000 FY99: \$146,317 Total: \$146,317
Prin. Invest.: D STAMMER
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8731 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2737
 ADVANCED CADMIUM-ZINC-TELLURIDE DETECTORS FOR RESEARCH IN
 ASTROPHYSICS
 08/17/1999 - 08/14/2000 FY99: \$157,262 Total: \$157,262
Prin. Invest.: J L MATTESON
Tech. Officer: GSFC/F A HERRERO
CASE Category: 11 - ASTRONOMY

NAG 5 8768 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2738
 DYNAMIC HUMAN-CENTERED INTERFACES: MONITORING ATTENTIONAL
 PROCESSES IN CONTROL OF CRITICAL SYSTEMS
 08/26/1999 - 08/31/2000 FY99: \$41,405 Total: \$41,405
Prin. Invest.: T JUNG
Tech. Officer: GSFC/R CROUCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8780 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2739
 ROUTINE HIGH-RESOLUTION, ATMOSPHERIC FORECAST/ANALYSIS MOD-
 ELING SYSTEMS FOR THE PACIFIC DISASTER CE
 08/30/1999 - 08/31/2001 FY99: \$575,555 Total: \$575,555
Prin. Invest.: J ROADS
Tech. Officer: GSFC/E PAYLOR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1516 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2740
 VARIABILITY AND PREDICTABILITY OF LAND-ATMOSPHERE OBSERVA-
 TIONAL AND MODELING STUDIES
 05/12/1998 - 04/30/2001 FY99: \$53,976 Total: \$105,442
Prin. Invest.: J ROADS
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1571 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2741
 CARTILAGE TISSUE ENGINEERING: CIRCUMFERENTIAL SEEDING OF
 CHONDROCYTES USING ROTATING BIOREACTORS
 01/12/1999 - 11/30/2002 FY99: \$117,000 Total: \$117,000
Prin. Invest.: R L SAH
Tech. Officer: MSFC/K HIGGINBOTHAM
CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1589 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2742
 NOVEL STRATEGY FOR TRI-DIMENSIONAL IN VITRO BONE INDUCTION
 02/25/1999 - 11/30/2002 FY99: \$90,000 Total: \$90,000
Prin. Invest.: J A FRANGOS
Tech. Officer: MSFC/B GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 837 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2743
 ROLE OF FLUID SHEAR ON 3-D BONE TISSUE CULTURE
 09/27/1995 - 08/15/1999 FY99: \$0 Total: \$312,000
Prin. Invest.: J A FRANGO
Tech. Officer: JSC/N PELLIS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1002 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2744
 DETERMIN OXYGEN BLANK & SUITABILITY CVD DIAMOND
 04/30/1998 - 04/29/2000 FY99: \$52,000 Total: \$288,000
Prin. Invest.: M H THIEMENS
Tech. Officer: JSC/E K STANSBERRY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 449 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2745
 HIGH RESOLUTION GAMMA-RAY SPECTROSCOPY OF COSMIC SOURCES
 03/15/1983 - 09/30/1997 FY99: \$0 Total: \$12,109,860
Prin. Invest.: J L MATTESON, NONE
Tech. Officer: HQ/L J KALUZIENSKI, HQ/A N BUNNER
CASE Category: 11 - ASTRONOMY

NAGW 1150 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2746
 USE OF GENERALIZED ADIABATIC THEORY TO STUDY MAGNETOSPHERIC
 09/09/1987 - 09/30/1998 FY99: \$0 Total: \$426,000
Prin. Invest.: E C WHIPPLE
Tech. Officer: HQ/M M MELLOTT, HQ/T W PERRY
CASE Category: 13 - PHYSICS

NAGW 2034 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2747
 GLOBAL ATMOSPHERIC GASES EXPERIMENT (GAGE)
 07/16/1990 - 09/30/1998 FY99: \$0 Total: \$2,996,869
Prin. Invest.: R F WEISS
Tech. Officer: HQ/M J KURYLO, HQ/M J PRATHER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 2881 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2748
 THE CHEMISTRY OF EARLY SELF-REPLICATING SYSTEMS
 02/26/1992 - 12/31/1997 FY99: \$0 Total: \$4,693,000
Prin. Invest.: S L MILLER
Tech. Officer: HQ/R J WHITE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4238 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2749
 NOBEL GAS SYSTEMATICS IN PLANETARY ATMOSPHERES: SIMULATION OF
 FRACTIONATION MECHANISMS USING ION
 01/11/1995 - 09/30/1997 FY99: -\$2,136 Total: \$138,014
Prin. Invest.: K MARTI
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4372 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2750
 PULMONARY DEPOSITION OF AEROSOLS IN MICROGRAVITY
 03/31/1995 - 02/14/1998 FY99: -\$11 Total: \$396,496
Prin. Invest.: G K PRISK
Tech. Officer: HQ/F SULZMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4557 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2751
 KIDSAT MISSION OPERATIONS
 06/02/1995 - 12/30/1997 FY99: \$0 Total: \$775,000
Prin. Invest.: S K RIDE
Tech. Officer: HQ/F C OWENS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4726 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2752
 APPLICATION AND DEVELOPMENT OF ADVANCED IMAGE RECONSTRUC-
 TION ALGORITHMS FOR NASA ASTROPHYSICS DATA
 08/28/1995 - 09/30/1997 FY99: -\$35 Total: \$311,600
Prin. Invest.: R C PUETTER
Tech. Officer: HQ/D A HOLLAND, HQ/J H BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAS 1 98141 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2753
 A STUDY OF CLOUD RADIATIVE FORCING AND FEEDBACK (CERES)
 10/30/1998 - 10/29/1999 FY99: \$200,018 Total: \$200,018
Prin. Invest.: V RAMANATHAN
Tech. Officer: LARC/B A WIELICKI, LARC/R L HUFFMAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 30720 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2754
 HIGH ENERGY X-RAY TIMING EXPERIMENT FOR XTE PROJECT
 11/01/1989 - 08/31/1999 FY99: \$405,764 Total: \$29,410,324
Prin. Invest.: R E ROTHSCCHILD
Tech. Officer: GSFC/W D DAVIS
 CASE Category: 11 - ASTRONOMY

NAS 5 33019 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2755
 GLRS SCIENCE TEAM MEMBER STUDY
 10/05/1989 - 11/30/1998 FY99: \$0 Total: \$669,752
Prin. Invest.: J B MINSTER
Tech. Officer: GSFC/G SOFFEN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 97121 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2756
 PULSE SHAPE DISCRIMINATOR FOR INTEGRAL SPECTROMETER (LETTER CONTRACT)
 01/24/1997 - 09/30/2001 FY99: \$513,374 Total: \$3,257,000
Prin. Invest.: J L MATTESON, R P LIN
Tech. Officer: GSFC/J P MURPHY
 CASE Category: 11 - ASTRONOMY

NAS 5 97130 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2757
 BIO-OPTIONAL MEASUREMENT-MODELING OF CA CURRENT & POLAR OCEAN
 08/18/1997 - 08/18/1999 FY99: \$469,048 Total: \$783,048
Prin. Invest.: B G MITCHELL
Tech. Officer: GSFC/C R MCCLAIN
 CASE Category: 33 - OCEANOGRAPHY

NAS 5 97135 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2758
 SATELLITE OCEAN COLOR VALIDATION USING MERCHANT SHIP
 09/22/1997 - 09/21/2000 FY99: \$267,240 Total: \$456,360
Prin. Invest.: R FROUIN
Tech. Officer: GSFC/J L MUELLER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 97139 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2759
 RESEARCH-ATMOSPHERIC CORRECTION ALGORITHMS FOR OCEAN COLOR REMOTE SENSING
 09/23/1997 - 05/22/2000 FY99: \$97,000 Total: \$220,000
Prin. Invest.: K STAMNES
Tech. Officer: GSFC/J MUELLER
 CASE Category: 33 - OCEANOGRAPHY

NAS 5 99006 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2760
 GLAS SCIENCE TEAM LEADER.
 11/25/1998 - 11/30/2004 FY99: \$225,000 Total: \$225,000
Prin. Invest.: J B MINSTER
Tech. Officer: GSFC/G SMITH
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 99120 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2761
 TRIANA SCIENCE INVESTIGATION
 12/09/1998 - 09/30/2003 FY99: \$14,781,000 Total: \$14,781,000
Prin. Invest.: F VALCRO
Tech. Officer: GSFC/J WATZIM, GSFC/C TOOLEY
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 36081 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2762
 R (SD)
 06/01/1984 - 04/30/1998 FY99: \$0 Total: \$4,349,249
Prin. Invest.: J L MATTERSON
Tech. Officer: MSFC/G J FISHMAN
 CASE Category: 11 - ASTRONOMY

NAS 9 18764 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2763
 STUDIES OF PULMONARY FUNCTION IN WEIGHTLESSNESS
 10/02/1992 - 09/15/1998 FY99: -\$758 Total: \$2,657,354
Prin. Invest.: J B WEST
Tech. Officer: JSC/V ELLERBE
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAS 9 19434 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2764
 LIFE SCIENCES FLIGHT EXPERIMENT E198, SLEEP & RESPIRATION IN MICROGRAVITY
 12/06/1995 - 07/31/2000 FY99: \$224,001 Total: \$1,519,866
Prin. Invest.: J B WEST
Tech. Officer: JSC/S G SAWYER
 CASE Category: 56 - MEDICL

NAS 9 98124 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2765
 EFFECT OF EVA & LONG-TERM EXPOSURE TO MICROGRAVITY ON PULMONARY FUNCTION
 03/02/1999 - 06/30/2002 FY99: \$280,000 Total: \$280,000
Prin. Invest.: J B WEST
Tech. Officer: JSC/S MCCULLUM
 CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 1 305 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2766
 PILOT STUDY OF SONIC BOOM PENETRATION INTO THE OCEAN
 07/06/1998 - 03/31/2000 FY99: \$50,296 Total: \$120,296
Prin. Invest.: R A SOHN
Tech. Officer: LARC/G L MCANINCH, LARC/K P SHEPHARD
 CASE Category: 13 - PHYSICS

NCC 2 978 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2767
 NONINVASIVE MEASUREMENT OF INTERCRANIAL PRESSURE USING ULTRASOUND
 02/04/1997 - 12/31/1999 FY99: \$164,504 Total: \$609,667
Prin. Invest.: R A PEDOWITZ
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
 CASE Category: 56 - MEDICL

NCC 2 996 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2768
 TRAINING REQUIREMENTS FOR AUTOFLIGHT USE IN A DATA LINK ATC ENVIRONMENT
 06/11/1997 - 09/30/1998 FY99: \$0 Total: \$76,999
Prin. Invest.: E HUTCHINS
Tech. Officer: ARC/S CASNER, ARC/E A PALMER
 CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 1032 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2769
 A LONGITUDINAL STUDY OF SKILL ACQUISITION IN AUTOMATION-EQUIPPED COMMERCIAL TRANSPORT AIRCRAFT
 05/18/1998 - 04/30/1999 FY99: \$0 Total: \$54,824
Prin. Invest.: E L HUTCHENS
Tech. Officer: ARC/S M CASNER
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 1034 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2770
 STUDENT/MENTOR DESIGN PROJECTS FOR PLANETARY ENTRY & SAMPLE RETURN MISSIONS
 04/29/1998 - 12/31/1999 FY99: \$90,564 Total: \$174,800
Prin. Invest.: J R ARNOLD, M J WISKERCHEN *Prin. Invest.:* NONE
Tech. Officer: ARC/D J RASKY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 1133 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2771
 LOWER BODY NEGATIVE PRESSURE AS A COUNTERMEASURE FOR SPACEFLIGHT DECONDITIONING
 08/02/1999 - 07/14/2000 FY99: \$261,276 Total: \$261,276
Prin. Invest.: C ROGERS
Tech. Officer: ARC/E M HOLTON
CASE Category: 56 - MEDICAL

NCC 2 1135 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2772
 DEVELOPMENT OF TENSEGRITY CONCEPTS FOR TRANSFORMABLE ENTRY AEROSHELL
 08/25/1999 - 12/14/1999 FY99: \$23,000 Total: \$23,000
Prin. Invest.: R E SKELTON
Tech. Officer: ARC/H K TRAN, ARC/M REZIN
CASE Category: 46 - MECHANICAL ENGR

NCC 2 5191 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2773
 SULFUR IN COMETARY DUST
 10/23/1996 - 09/30/1997 FY99: \$0 Total: \$30,000
Prin. Invest.: D FOMENKOVA
Tech. Officer: ARC/D CHANG
CASE Category: 12 - CHEMISTRY

NCC 2 5232 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2774
 AN EVALUATION OF BIOGENICITY IN ALH84001
 08/12/1997 - 03/31/2000 FY99: \$0 Total: \$14,676
Prin. Invest.: G ARRHEMUS, S MORGAN
Tech. Officer: ARC/D BLAKE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5302 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2775
 TECHNOLOGY FOR MOLECULAR-LEVEL COMPUTER MODELING OF PROTOCELLULAR
 12/22/1998 - 12/14/1999 FY99: \$74,446 Total: \$74,446
Prin. Invest.: V GALINSKY
Tech. Officer: ARC/A POHORILLE, ARC/M H NEW
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 3 407 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2776
 SCIENTIFIC SUPPORT FOR A PROPOSED SPACE SHUTTLE DROPLET BURNING EXPERIMENT
 02/28/1995 - 11/30/1999 FY99: \$102,000 Total: \$451,002
Prin. Invest.: F A WILLIAMS
Tech. Officer: GRC/H D ROSS
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 506 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2777
 STRETCHED DIFFUSION FLAMES IN VON KARMAN SWIRLING FLOWS
 09/25/1996 - 06/30/2000 FY99: \$47,942 Total: \$109,937
Prin. Invest.: F A WILLIAMS, NONE
Tech. Officer: GRC/K R SACKSTEDER, GRC/H D ROSS
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 3 569 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2778
 NEW APPROACHES FOR INTEGRALLY DAMPED COMPOSITE FAN BLADES
 07/25/1997 - 12/23/1999 FY99: \$19,440 Total: \$98,436
Prin. Invest.: J KOSMATKA
Tech. Officer: GRC/O MEHMED
CASE Category: 46 - MECHANICAL ENGR

NCC 3 693 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2779
 HIGH-PRESSURE COMBUSTION OF BINARY FUEL SPRAYS HIGH-PRESSURE COMBUSTION OF BINARY FUEL SPRAYS
 03/25/1999 - 01/03/2003 FY99: \$33,717 Total: \$33,717
Prin. Invest.: F A WILLIAMS
Tech. Officer: GRC/D L DIETRICH
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 695 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2780
 DYNAMICS OF DROPLETS EXTINCTION IN SLOW CONVECTIVE FLOWS
 03/25/1999 - 01/13/2003 FY99: \$7,491 Total: \$7,491
Prin. Invest.: F A WILLIAMS, NONE
Tech. Officer: GRC/D L URBAN
CASE Category: 49 - ENGINEERING, OTHER

NCC 5 221 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2781
 EXPLORING EDUCATIONAL LINKAGES
 09/15/1997 - 07/31/1998 FY99: -\$4 Total: \$94,996
Prin. Invest.: P K RIDE
Tech. Officer: GSFC/P MOUNTJOY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 230 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2782
 CORRELATED NOISE IN GPS TIME SERIES AND ITS EFFECT MODELS
 08/22/1997 - 08/31/2000 FY99: \$0 Total: \$92,292
Prin. Invest.: H JOHNSON
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NCC 5 257 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2783
 EARTHKAM (EARTH KNOWLEDGE ACQUIRED BY MIDDLE SCHOOLS)
 11/25/1997 - 10/31/1999 FY99: \$799,915 Total: \$1,454,803
Prin. Invest.: D K RIDE
Tech. Officer: HQ/P MOUNTJOY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40005 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2784
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 10/02/1989 - 01/31/1998 FY99: \$0 Total: \$3,084,278
Prin. Invest.: J ARNOLD
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

<p>NGT 1 52133 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2785 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 06/14/1996 - 06/30/1999 FY99: \$1,000 Total: \$55,000 <i>Prin. Invest.:</i> J M SCHOPL, F BERMAN <i>Tech. Officer:</i> LARC/R HATHAWAY <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>	<p>NGT 5 40007 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2793 SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM. 01/24/1997 - 01/31/2000 FY99: \$475,000 Total: \$1,376,000 <i>Prin. Invest.:</i> J A ARNOLD <i>Tech. Officer:</i> GSFC/L KEFFER <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>
<p>NGT 2 52237 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2786 DRAGSAT PROJECT 09/25/1997 - 08/31/1998 FY99: \$0 Total: \$15,000 <i>Prin. Invest.:</i> J R ARNOLD <i>Tech. Officer:</i> ARC/D J RASKY <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p>	<p>NGT 5 40057 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2794 "GLOBAL LEARNING AND OBSERVATIONS TO BENEFIT THE E _PROGRAM/ FALL WORKSHOP 02/12/1997 - 01/31/1998 FY99: -\$12 Total: \$20,257 <i>Prin. Invest.:</i> J R ARNOLD <i>Tech. Officer:</i> GSFC/L OSTENDORF <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>
<p>NGT 2 52251 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2787 ACHIEVING APPLICATION PERFORMANCE ON THE INFORMATION POWER GRID 09/18/1998 - 01/14/2000 FY99: \$4,000 Total: \$26,000 <i>Prin. Invest.:</i> F BERMAN <i>Tech. Officer:</i> ARC/C H SCHULBACK <i>CASE Category:</i> 22 - COMPUTER SCIENCE</p>	<p>NGT 5 50131 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2795 IMPROVING SCIENTIFIC APPLICATION PERFORMANCE BY DY 09/10/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000 <i>Prin. Invest.:</i> F BERMAN <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>
<p>NGT 3 52333 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2788 GRADUATE STUDENT RESEARCHES PROGRAM 06/11/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000 <i>Prin. Invest.:</i> J KOSMATKA <i>Tech. Officer:</i> GRC/F J MONTEGANI <i>CASE Category:</i> 49 - ENGINEERING, OTHER</p>	<p>NGT 5 50169 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2796 THE FLUID FEATURE HIERARCHY: A FRAMEWORK FOR MACHINE VISION 10/31/1997 - 07/31/2000 FY99: \$22,000 Total: \$66,000 <i>Prin. Invest.:</i> E MJOLSESS <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 22 - COMPUTER SCIENCE</p>
<p>NGT 5 42 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2789 FELLOWSHIP FOR GRADUATE STUDENTS WITH THE JOINT CE SYSTEM SCIENCE (JCOSS) 06/17/1997 - 05/31/2000 FY99: \$0 Total: \$150,000 <i>Prin. Invest.:</i> F VALERO <i>Tech. Officer:</i> GSFC/A J BUSALACCHI <i>CASE Category:</i> 33 - OCEANOGRAPHY</p>	<p>NGT 5 50183 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2797 THREE ASTROPHYSICAL GRAILS: THE ORIGINS OF DARK MATTER, GAMMA-RAY BURSTS, AND HEAVY ELEMENTS 05/27/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> G M FULLER <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 13 - PHYSICS</p>
<p>NGT 5 30036 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2790 OCEAN COLOR MODELS OF PRIMARY PRODUCTION FOR PHAEO POLAR REGIONS 10/17/1996 - 08/31/1999 FY99: \$0 Total: \$66,000 <i>Prin. Invest.:</i> B MITCHELL <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 33 - OCEANOGRAPHY</p>	<p>NGT 5 50234 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2798 PARADIGM SHIFTS IN THE GAMMA-RAY BURST MYSTERY AND COSMOLOGY: WORKING TOWARDS FIRM GROUND 05/27/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> G FULLER <i>Tech. Officer:</i> GSFC/L SMITH <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>
<p>NGT 5 30122 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2791 LONG-TERM VARIABILITY IN PHYTOPLANKTON GROWTH RATES & PRIMARY PRODUCTIVITY ESSF RECIPIENT: AMY SHAN 10/01/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000 <i>Prin. Invest.:</i> R GOERICKE, NONE <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER</p>	<p>NAG 2 981 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2799 MICROGRAVITY EFFECTS ON BONE CELL GENE EXPRESSION 05/24/1995 - 02/14/1998 FY99: -\$1,082 Total: \$319,324 <i>Prin. Invest.:</i> M HUGHES-FULFORD <i>Tech. Officer:</i> ARC/C M WINGET, ARC/G C JAHNS <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)</p>
<p>NGT 5 30150 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2792 BIOSPHERIC INFLUENCE ON ATMOSPHERIC CO2, VIEWED FROM THE D180 SIGNATURE/NASAEARTH SYSTEM SCIENCE F 08/28/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> M WAHLEN <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p>	<p>NAG 2 1086 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2800 OSTEOMARS: EFFECTS OF MICROGRAVITY ON OSTEOBLAST GENE EXPRESSION IN VARIABLE GRAVITY 10/04/1996 - 06/30/2000 FY99: \$0 Total: \$580,833 <i>Prin. Invest.:</i> M H FULFORD <i>Tech. Officer:</i> ARC/C M WINGET, ARC/P D SAVAGE <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)</p>

NAG 5 6374 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2801
 ROLE OF INTEGRINS IN MECHANICAL LOADING OF OSTEOBLASTS
 10/03/1997 - 06/30/1999 FY99: \$0 Total: \$149,486
Prin. Invest.: D GLOBUS
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 812 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2802
 EXPANSION AND DIFFERENTIATION OF CELLS
 09/19/1995 - 08/31/2000 FY99: \$185,000 Total: \$725,000
Prin. Invest.: B BHATNAGAR
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 19411 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2803
 CREW MEMBER & CREW GROUND INTERACTIONS DURING NASA/ MIR
 09/22/1995 - 04/01/2000 FY99: \$329,182 Total: \$784,182
Prin. Invest.: D KANAS, NONE
Tech. Officer: JSC/J VILLARREAL
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 99055 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2804
 LIFE SCIENCE FLIGHT EXPERIMENT
 01/29/1999 - 12/31/2002 FY99: \$145,000 Total: \$145,000
Prin. Invest.: T LANG
Tech. Officer: JSC/D BAUMANN
CASE Category: 56 - MEDICL

NCC 2 589 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2805
 GRAVITY AND SKELETAL GROWTH
 03/15/1989 - 12/31/1998 FY99: \$0 Total: \$1,822,246
Prin. Invest.: E M HOLTON
Tech. Officer: ARC/S B ARNAUD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 772 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2806
 MOLECULAR SELF-ORGANIZATION & THE ORIGIN OF LIFE: FORMATION &
 FUNCTIONS OF PROTOCELLS
 10/16/1992 - 03/31/1999 FY99: \$0 Total: \$660,308
Prin. Invest.: M A WILSON
Tech. Officer: ARC/M L FONDA
CASE Category: 12 - CHEMISTRY

NCC 2 993 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2807
 EVOLUTIONARY CELL COMPUTING
 05/16/1997 - 06/30/2000 FY99: \$43,331 Total: \$158,786
Prin. Invest.: M A WILSON
Tech. Officer: ARC/M H NEW, ARC/S CHANG
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 2 1009 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2808
 IMMUNOGENETICS OF THE ELEPHANT SEAL (JOHN C GARZA)
 12/08/1997 - 11/14/1998 FY99: \$0 Total: \$25,000
Prin. Invest.: N FREIMER, J C GARZA
Tech. Officer: ARC/C E WADE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 1126 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2809
 MEMBRANE-BASED FUNCTIONS IN THE ORIGINS OF CELLULAR LIFE
 06/14/1999 - 01/31/2000 FY99: \$60,080 Total: \$60,080
Prin. Invest.: M A WILSON
Tech. Officer: ARC/M H NEW, ARC/M L FONDA
CASE Category: 12 - CHEMISTRY

NCC 2 5294 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2810
 MOLECULAR MODELING IN BIO-NANOTECHNOLOGY: COMPUTER AIDED
 GENETIC ENGINEERING OF A PROTEIN-BASED ...
 09/21/1998 - 12/31/1999 FY99: \$72,667 Total: \$88,667
Prin. Invest.: M A WILSON
Tech. Officer: ARC/R L JAFFE
CASE Category: 12 - CHEMISTRY

NCC 2 5295 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2811
 TOWARDS A PHYLOGENY OF BIOLOGICAL FUNCTIONS
 09/25/1998 - 01/31/2000 FY99: \$86,727 Total: \$116,227
Prin. Invest.: M A WILSON
Tech. Officer: ARC/M H NEW, ARC/M L FONDA
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 2 1140 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2812
 MODELING & PREDICTION OF WILDFIRE HAZARD IN SOUTHERN CALIFOR-
 NIA, INTEGRATION OF MODELS WITH.....
 07/21/1997 - 06/30/2000 FY99: \$95,000 Total: \$245,000
Prin. Invest.: D A ROBERTS, S L LUSTIN, R CHURCH
Tech. Officer: ARC/G A SHELTON, ARC/J A BRASS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 2 1148 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2813
 CHARACTERIZATION OF LIGHT WEIGHT CERAMIC ABLATOR MATERIALS
 07/30/1997 - 06/30/1998 FY99: \$0 Total: \$42,121
Prin. Invest.: F MILSTEIN
Tech. Officer: ARC/H TRAN
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1847 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2814
 THE SUPERFLUID TRANSITION OF HE4 UNDER UNUSUAL CONDITIONS
 05/02/1996 - 05/01/2000 FY99: \$179,000 Total: \$653,000
Prin. Invest.: P AHLERS
Tech. Officer: GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1857 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2815
 NUMERICAL SIMULATION OF ELECTROCHEMICAL TRANSPORT PROCESS
 IN MICROGRAVITY ENVIRONMENTS
 05/06/1996 - 05/05/2000 FY99: \$80,000 Total: \$267,000
Prin. Invest.: S BAMERJEE
Tech. Officer: GRC/J C DUH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1896 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2816
 THE BREAK-UP AND COALESCENCE OF GAS BUBBLES DRIVEN BY VELOC-
 ITY GRADIENTS OF A NON-UNIFORM FLOW
 06/17/1996 - 06/16/1998 FY99: -\$165 Total: \$139,835
Prin. Invest.: L LEAL
Tech. Officer: GRC/B S SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 3 2115 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2817
 INTERACTION FORCES AND THE FLOW-INDUCED COALESCENCE OF
 DROPS AND BUBBLES
 02/19/1998 - 01/07/2002 FY99: \$150,000 Total: \$275,000
 Prin. Invest.: L G LEAL
 Tech. Officer: GRC/B S SINGH
 CASE Category: 43 - CHEMICAL ENGR

NAG 3 2119 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2818
 POOL BOILING CIRCUITS FROM FLAT PLATES: MECHANISM(S) AND
 ENHANCEMENT
 02/26/1998 - 09/30/2001 FY99: \$100,000 Total: \$248,000
 Prin. Invest.: T G THEOFANOUS, Y BUYEVIAH
 Tech. Officer: GRC/J B MCQUILLEN
 CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2145 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2819
 THE FIRST ANNUAL MEETING OF THE INSTITUTE OF MULTI FLUID SCIENCE
 AND TECHNOLOGY
 03/30/1998 - 07/31/1999 FY99: \$8,000 Total: \$18,000
 Prin. Invest.: T G THEOFANOUS
 Tech. Officer: GRC/B S SINGH
 CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2255 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2820
 SUPPORT FUNDING FOR FIRST INTERNATIONAL SYMPOSIUM ON TURBU-
 LENCE AND SHEARFLOW PHENOMENA, SEPT 1999
 04/06/1999 - 09/30/1999 FY99: \$5,000 Total: \$5,000
 Prin. Invest.: S BANERJEE, NONE
 Tech. Officer: GRC/R D GREEN
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 3024 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2821
 TOPOGRAPHIC EVOLUTION OF VOLCANIC ISLAND
 10/11/1995 - 01/31/1999 FY99: \$0 Total: \$381,332
 Prin. Invest.: O A CHADWICK
 Tech. Officer: GSFC/H V FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3334 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2822
 SEARCH FOR CO ABSORPTION IN THE CYGNUS A TORUS
 08/09/1996 - 08/14/1998 FY99: \$70 Total: \$61,130
 Prin. Invest.: R J ANTONUCCI
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3620 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2823
 "REMOTE SENSING INFORMATION SCIENCES RESEARCH GROU
 02/07/1997 - 12/14/1999 FY99: \$494,708 Total: \$1,994,593
 Prin. Invest.: D E ESTES, NONE
 Tech. Officer: GSFC/A J TUYOHOF
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3646 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2824
 SOLAR SYSTEM PHYSICS
 02/25/1997 - 04/30/2000 FY99: \$85,000 Total: \$170,000
 Prin. Invest.: S J PEALE
 Tech. Officer: GSFC/J G GRANT
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3814 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2825
 DEVELOPMENT AND CRYOGENIC TESTING OF MICROWAVE RAD ARCADE
 PROJECT
 01/14/1997 - 01/14/1998 FY99: -\$31 Total: \$14,969
 Prin. Invest.: P LUBIN
 Tech. Officer: GSFC/R A SHAFER
 CASE Category: 11 - ASTRONOMY

NAG 5 4078 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2826
 ADVANCED BALLOONING STUDIES AND TECHNOLOGY DEVELOP
 04/25/1997 - 10/31/1999 FY99: \$250,000 Total: \$760,000
 Prin. Invest.: P M LUBIN
 Tech. Officer: GSFC/H THRONSON
 CASE Category: 11 - ASTRONOMY

NAG 5 4126 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2827
 SPATIAL AND TEMPORAL VARIABILITY IN SEA ICE COVER ANTARCTIC
 PENINSULA AS PART OF THE PALMER LONG TE
 03/06/1997 - 12/31/1999 FY99: \$36,279 Total: \$99,400
 Prin. Invest.: R C SMITH
 Tech. Officer: GSFC/R H THOMAS
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 4185 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2828
 DEVELOPMENT OF LARGE COOLED HEMT ARRAYS FOR BALLOON OF COS-
 MIC BACKGROUND RADIATION ANISOTROPIES
 03/24/1997 - 11/30/1999 FY99: \$131,666 Total: \$400,569
 Prin. Invest.: M MEINHOLD
 Tech. Officer: GSFC/H THRONSON
 CASE Category: 11 - ASTRONOMY

NAG 5 4455 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2829
 BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF THE BACK-
 GROUND ON ANGULAR SCALES OF 0.2 TO 40 DEGREES
 06/05/1997 - 12/31/1999 FY99: \$50,023 Total: \$123,671
 Prin. Invest.: D E RUHL
 Tech. Officer: GSFC/H THRONSON
 CASE Category: 11 - ASTRONOMY

NAG 5 4460 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2830
 NON-MARINE STROMATOLITES AND THE SEARCH FOR PAST L
 05/14/1997 - 06/30/2000 FY99: \$0 Total: \$70,730
 Prin. Invest.: D M AWRAMIK
 Tech. Officer: GSFC/M MEYER
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4629 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2831
 PARAMETERIZATION OF CLOUD 3-D EFFECTS ON SURFACE S GET ESTI-
 MATED FROM SATELLITE MEASUREMENTS
 05/21/1997 - 05/31/2000 FY99: \$130,000 Total: \$330,000
 Prin. Invest.: C GAUTHIER
 Tech. Officer: GSFC/R CAHALAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4814 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2832
 HYDROLOGY, HYDROCHEMICAL MODELING AND REMOTE SENSING SNOW-
 COVERED ALPINE DRAINAGE BASINS
 06/19/1997 - 12/31/2000 FY99: \$710,000 Total: \$2,394,535
 Prin. Invest.: J C DOZIER
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4963 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2833
 PROGRAM IS PART OF A LONG TERM EFFORT ICESSE IS DEV RGRADUATE
 STUDENTS, EARLY ON IN THEIR ACADEMIC LI
 06/27/1997 - 06/30/2000 FY99: \$75,000 Total: \$225,000
 Prin. Invest.: C GAUTIER
 Tech. Officer: GSFC/N KHAZENIE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6120 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2834
 THE EOS AMAZON PROJECT
 08/13/1997 - 06/30/2000 FY99: \$0 Total: \$415,596
 Prin. Invest.: T DUNNE
 Tech. Officer: GSFC/T JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6226 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2835
 JERS AMAZON MULTI-SEASON MAPPING STUDY (JAMMS)
 09/11/1997 - 05/31/2000 FY99: \$88,531 Total: \$176,485
 Prin. Invest.: J MELACK
 Tech. Officer: GSFC/D WICKLAND
 CASE Category: 11 - ASTRONOMY

NAG 5 6259 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2836
 ACCURACY ASSESSMENT OF THE IGBP FAST-TRACK 1 KM LA METH-
 ODOLOGICAL DEVELOPMENT, EXECUTION, AND LESSON
 08/19/1997 - 07/31/1999 FY99: \$0 Total: \$330,000
 Prin. Invest.: J ESTES
 Tech. Officer: GSFC/A C JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6288 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2837
 DEVELOPMENT AND APPLICATION OF THE NEXT GENERATION FOR THE
 UNDERSTANDING OF MARINE PROCESSES ON REGI
 09/10/1997 - 08/31/2000 FY99: \$120,000 Total: \$501,063
 Prin. Invest.: D SIEGEL
 Tech. Officer: GSFC/J YODER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6434 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2838
 BIO-OPTICS IN THE WESTERN ANTARCTIC PENINSULA REGION
 10/16/1997 - 09/30/2000 FY99: \$242,438 Total: \$392,438
 Prin. Invest.: R SMITH
 Tech. Officer: GSFC/J YODER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6465 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2839
 INVESTIGATION OF SNOW PROPERTIES USING MODIS AND A STER DATA
 10/24/1997 - 09/30/2000 FY99: \$49,999 Total: \$260,054
 Prin. Invest.: J SHI
 Tech. Officer: GSFC/D STARR
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6478 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2840
 INFRASTRUCTURE FOR TRAINING AND PARTNERSHIPS-CALIF ORNIA
 WATER AND COASTAL OCEAN RESOURCES
 11/18/1997 - 09/30/1999 FY99: \$0 Total: \$395,480
 Prin. Invest.: D SIEGEL
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6911 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2841
 A REQUEST FOR SCIENCE READINESS FUNDS FOR THE OPTI CAL MON-
 ITOR PROGRAM OF HTE X-RAY MULTI-MIRROR MISS
 01/28/1998 - 01/31/2000 FY99: \$93,347 Total: \$201,479
 Prin. Invest.: D CORDOVA
 Tech. Officer: GSFC/R DONNELLY
 CASE Category: 11 - ASTRONOMY

NAG 5 7048 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2842
 A STUDY OF THE EUV/X-RAY CORRELATION IN NGC 4151 WITH EUVE AND
 XTE
 02/19/1998 - 09/30/1999 FY99: \$0 Total: \$11,840
 Prin. Invest.: O M BLAES
 Tech. Officer: GSFC/R J OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 7075 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2843
 DETAILED THEORETICAL MODELING OF THE SPECTRUM AND POLARIZA-
 TION OF ACCRETION DISKS IN ACTIVE GA
 02/25/1998 - 02/29/2000 FY99: \$77,919 Total: \$145,780
 Prin. Invest.: O M BLAES
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7125 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2844
 XTE PROPOSAL - THE NATURE OF THE BROAD-BAND CONTINUUM OF
 NGC 5548 FROM EUVE, ASCA, AND XTE
 04/24/1998 - 03/31/1999 FY99: \$0 Total: \$9,688
 Prin. Invest.: O M BLAES
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7177 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2845
 PROBABILITY OF DETECTING PLANETS WITH MICROLENSING
 03/16/1998 - 03/14/2000 FY99: \$31,100 Total: \$61,100
 Prin. Invest.: S J PEALE
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 7248 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2846
 SIMPLE AND MULTIPLE ENDMEMBER SPECTRAL MIXTURE ANALYSIS IN
 THE BOREAL FOREST
 04/24/1998 - 06/30/2000 FY99: \$20,000 Total: \$40,000
 Prin. Invest.: D A ROBERTS
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7273 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2847
 XTE PROPOSAL - THE VELA PULSAR: ARE X-RAY & RADIO PULSE PRO-
 PERTIES CORRELATED.
 04/24/1998 - 04/30/1999 FY99: \$0 Total: \$1,000
 Prin. Invest.: C GWINN
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7714 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2848
 POSTLAUNCH: STATEMENT OF WORK U.S. OPTICAL MONITOR TEAM
 10/05/1998 - 09/30/1999 FY99: \$111,282 Total: \$111,282
 Prin. Invest.: F CORDOVA
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 7918 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2849
 BLACK HOLES: THEORY CONFRONTS REALITY
 12/09/1998 - 12/31/1999 FY99: \$29,000 Total: \$29,000
Prin. Invest.: D GROSS
Tech. Officer: GSFC/L KALUZIENSKI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7940 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2850
 OUTREACH PROJECT
 01/19/1999 - 09/30/2000 FY99: \$1,000 Total: \$1,000
Prin. Invest.: D FOSTER
Tech. Officer: GSFC/N E WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 7981 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2851
 ATMOSPHERIC EXCITATION OF PLANETARY NORMAL MODES
 01/13/1999 - 12/31/1999 FY99: \$35,000 Total: \$35,000
Prin. Invest.: D TANIMOTO
Tech. Officer: GSFC/J A GRANT
CASE Category: 11 - ASTRONOMY

NAG 5 8319 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2852
 PLUMES AND BLOOMS: MODELING THE CASE II WATERS OF THE SANTA BARBARA CHANNEL
 04/01/1999 - 03/31/2000 FY99: \$180,000 Total: \$180,000
Prin. Invest.: D A SIEGEL
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8396 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2853
 MESOSCALE EFFECTS OF CLIMATE AND LAND-COVER CHANGE ON RIVER-BASIN HYDROLOGY IN AMAZONIA
 04/01/1999 - 03/31/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: T DUNNE
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8542 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2854
 GAZETTEER IMPLEMENTATION FOR INDIRECT SPATIAL REFERENCING
 05/20/1999 - 05/31/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: L L HILL
Tech. Officer: GSFC/K MOE
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 8616 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2855
 EVALUATING USAGE OF SAR IN MEASURING SNOW PROPERTIES
 06/14/1999 - 06/30/2000 FY99: \$73,700 Total: \$73,700
Prin. Invest.: J SHI
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8658 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2856
 ROTATIONAL INSTABILITIES AND NUCLEOSYNTHESIS IN ACCRETING NEUTRON STARS
 08/31/1999 - 06/30/2000 FY99: \$40,000 Total: \$40,000
Prin. Invest.: L BILDSTEN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8669 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2857
 NANOSCALE BOLOMETERS AND EVAPORATIVE ELECTRONIC REFRIGERATION
 07/09/1999 - 07/14/2000 FY99: \$211,117 Total: \$211,117
Prin. Invest.: A CLELAND
Tech. Officer: GSFC/G MUCKLOW
CASE Category: 13 - PHYSICS

NAG 5 8680 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2858
 ATMOSPHERIC MINERAL DUST AND CHLOROPHYLL BLOOMS
 07/19/1999 - 07/14/2000 FY99: \$121,520 Total: \$121,520
Prin. Invest.: N M MAHOWALD
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1429 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2859
 R/S BOUNDARY EFFECTS ON TRANSPORT PROPERTIES AND DYNAMIC FINITE-SIZE SCALING NEAR THE SUPERFLUID
 02/23/1998 - 01/31/2002 FY99: \$169,558 Total: \$297,557
Prin. Invest.: G AHLERS, V DOHM, F C LIU
Tech. Officer: MSFC/J POE, JPL/D STRAYER
CASE Category: 13 - PHYSICS

NAG 9 1032 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2860
 VALIDATION OF LARGE SCALE LAND USE MAPS
 06/23/1998 - 12/31/1998 FY99: -\$972 Total: \$19,028
Prin. Invest.: J E ESTES
Tech. Officer: JSC/K P LULLA
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 290 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2861
 SHIP & SATELLITE BIO-OPTICAL RESEARCH IN THE CALIFORNIA BIGHT
 02/01/1982 - 07/31/1998 FY99: \$0 Total: \$3,706,840
Prin. Invest.: R C SMITH, K S BAKER
Tech. Officer: HQ/M R LEWIS, HQ/W S WILSON
CASE Category: 33 - OCEANOGRAPHY

NAGW 2602 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2862
 HYDROLOGY, HYDROCHEMICAL MODELING, AND REMOTE SENSING IN SEASONALLY SNOW-COVERED ALPINE DRAINAGE
 08/06/1991 - 09/30/1997 FY99: \$0 Total: \$3,999,221
Prin. Invest.: J DOZIER
Tech. Officer: HQ/G ASRAR, HQ/W S WILSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3951 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2863
 FULLY AUTOMATED REGISTRATION AND COMPOSITE GENERATIONS
 04/25/1994 - 12/31/1997 FY99: -\$3 Total: \$418,290
Prin. Invest.:
Tech. Officer: HQ/G H MUCKLOW, HQ/J H BREDECAMP
CASE Category: 22 - COMPUTER SCIENCE

NAGW 5185 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2864
 HYDROLOGY, HYDROCHEMICAL MODELING
 09/03/1996 - 07/31/1998 FY99: \$0 Total: \$720,000
Prin. Invest.: J DOZIER
Tech. Officer: HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5222 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2865
 OCEAN MEASUREMENTS FROM MOORINGS IN SUPPORT OF SEA WIFS
 10/04/1996 - 03/31/1998 FY99: \$0 Total: \$150,000
Prin. Invest.: T D DICKEY
Tech. Officer: HQ/N MAYNARD, HQ/R C HARRISS
CASE Category: 33 - OCEANOGRAPHY

NAGW 5233 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2866
 THE REGIONAL AMAZON MODEL
 09/30/1996 - 06/30/1998 FY99: \$0 Total: \$181,537
Prin. Invest.: T DUNNE
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5241 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2867
 USING LANDSAT DATA TO DEVELOP AN IMAGE BASED LOGISTIC REGRES-
 SION MODEL FOR PREDICTING DEFORESTATION
 11/25/1996 - 07/31/1999 FY99: \$0 Total: \$205,551
Prin. Invest.: R C FROHN
Tech. Officer: HQ/A ASRAR, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG13 99025 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2868
 IMPLEMENTATION OF PREDICTIVE SOIL MODELING IN THE NATIONAL
 COOPERATIVE SOIL SURVEY
 08/27/1999 - 08/26/2000 FY99: \$57,352 Total: \$57,352
Prin. Invest.: O CHADWICK
Tech. Officer: JSC/R MCKELLIP
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 5 31370 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2869
 EOS INVESTIGATION
 12/23/1991 - 12/14/2001 FY99: \$508,000 Total: \$3,204,402
Prin. Invest.: Z WAN
Tech. Officer: GSFC/H OSEROFF
CASE Category: 33 - OCEANOGRAPHY

NAS 5 31374 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2870
 EOS INVESTIGATION - ATMOSPHERIC INFRARED SOUNDER (AIRS) TEAM
 MEMBER INVESTIGATION
 03/04/1992 - 12/14/2001 FY99: \$185,000 Total: \$1,325,000
Prin. Invest.: C GAUTIER
Tech. Officer: GSFC/E KRIENS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 97119 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2871
 MANAGE DEVELOPMENT OF X-RAY MULTI-MIRROR MISSION DATA PROC-
 ESSING UNIT
 01/22/1997 - 03/01/2000 FY99: \$157,837 Total: \$906,837
Prin. Invest.: F A COROGVA
Tech. Officer: GSFC/R E DONNELL
CASE Category: 11 - ASTRONOMY

NAS 5 97125 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2872
 BERMUDA BIOOPTICS PROGRAM FOR SIMBIOS
 07/11/1997 - 07/10/2000 FY99: \$450,350 Total: \$867,476
Prin. Invest.: D A SIEGEL
Tech. Officer: GSFC/C MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NAS 5 97127 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2873
 BERMUDA TESTBED MOORING IN SUPPORT OF SIMBIDS
 07/15/1997 - 07/15/2000 FY99: \$285,634 Total: \$519,274
Prin. Invest.: T D DICKEY
Tech. Officer: GSFC/C MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NAS 5 97146 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2874
 EOS - IDS ATMOSPHERE - BIOSPHERE
 05/21/1997 - 05/20/2000 FY99: \$0 Total: \$90,000
Prin. Invest.: A S DENNING
Tech. Officer: GSFC/G COLLATZ
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 99083 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2875
 SPECTRAL DATA ASSIMILATION FOR MERGING SATELLITE OCEAN COLOR
 IMAGERY
 01/26/1999 - 10/31/1999 FY99: \$98,110 Total: \$98,110
Prin. Invest.: D SIEGEL
Tech. Officer: GSFC/C R MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NCC 2 1049 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2876
 CHARACTERIZATION OF LIGHTWEIGHT CERAMIC ABLATOR MA TERIALS
 07/16/1998 - 10/31/1999 FY99: \$20,593 Total: \$97,088
Prin. Invest.: F MILSTEIN
Tech. Officer: ARC/H K TRAN
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 551 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2877
 SPATIAL CROSS-CORRELATION IN BACK SCATTER
 04/08/1997 - 03/31/1999 FY99: \$0 Total: \$49,200
Prin. Invest.: D S CANNELL
Tech. Officer: GRC/T K GLASGOW, GRC/W MEYER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 5 281 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2878
 MULTI-SCALE ANALYSIS OF INUNDATION WITH MICROWAVE AND OPTICAL
 REMOTESENSING IN THE AMAZON BASIN:
 06/16/1998 - 12/31/1999 FY99: \$203,733 Total: \$309,006
Prin. Invest.: J MELACK
Tech. Officer: GSFC/D DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 282 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2879
 LAND-COVER CONVERSION IN AMAZONIA, THE ROLE OF ENV IRONMENT
 AND SUBSTRATECOMPOSITION IN MODIFYING SO
 06/12/1998 - 12/31/1999 FY99: \$178,141 Total: \$264,596
Prin. Invest.: O A CHADWICK
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 302 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2880
 THE EARTH SYSTEM SCIENCE WORKBENCH: A SCALABLE INFRASTRUC-
 TURE FOR ESIP'S
 04/09/1998 - 02/28/2001 FY99: \$1,000,000 Total: \$1,625,000
Prin. Invest.: J FREW
Tech. Officer: GSFC/M MAIDEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 30357 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2881
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/04/1996 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: T DUNNE
Tech. Officer: HQ/G ASRAR
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 3 52317 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2882
 GRADUATE STUDENT RESEARCHERS PROGRAM
 08/05/1996 - 11/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: S BANERJEE
Tech. Officer: GRC/D MONTEGANI
CASE Category: 43 - CHEMICAL ENGR

NGT 4 52407 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2883
 GSRP ANALYSIS OF ADAPTIVE CONTROL OF AEROELASTIC STRUCTURES
 USING MULTIDISCIPLINARY STARS PROGRAMS
 06/18/1998 - 07/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J C BRUCH, DR., JTARANTINO
Tech. Officer: SSC/K GUPTA, SSC/L S VOELKER
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 30050 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2884
 SEDIMENT EVACUATION FROM THE NORTH CENTRAL ANDES A GLOBAL
 CHANGE ON MOUNTAIN RANGE EROSION
 09/16/1997 - 08/31/1998 FY99: -\$77 Total: \$21,923
Prin. Invest.: T DUNNE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30063 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2885
 BIO-OPTICAL ANALYSIS OF PRIMARY PRODUCTIVITY AND G CHANGE IN
 ANTARCTIC COASTAL WATERS
 09/10/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: R SMITH
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30070 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2886
 THE EFFECTS OF REMOTELY SENSED DATA ON MODELED LAN TERAC-
 TIONS: CONSEQUENCES FOR GLOBAL CARBON BALA
 09/10/1997 - 12/31/1998 FY99: -\$22,000 Total: \$22,000
Prin. Invest.: S DENNING, PRIHODK
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30104 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2887
 INVESTIGATIONS OF COASTAL MARINE COMMUNITIES AS A MEANS TO
 UNDERSTANDING CONTEMPORARY EFFECTS OF GLO
 09/26/1997 - 08/31/1998 FY99: -\$1,932 Total: \$20,068
Prin. Invest.: S SCHMIDT
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTIINTERDISCIPL, OTHER

NGT 5 30173 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2888
 MASS BALANCE OF SEDIMENT TRANSPORT ACROSS COASTAL MARGIN
 FILTERS AT THE BASE OF THE TRANSVERSE RANGE
 09/22/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: MERTES, WARRICK
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30194 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2889
 A TOP-DOWN APPROACH TO UNDERSTANDING & PREDICTING DIMETHYL-
 SULFIDE VARIABILITY IN THE SARGASSO SEA
 08/18/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: D A SIEGEL, TOOLE
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30201 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2890
 MONITORING POPULATION AND THE EXTENT OF HUMAN SETTLEMENT IN
 THEBRAZILIAN AMAZON WITH SYNTH
 08/24/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: K C CLARKE
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50010 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2891
 ESTIMATION OF HUMAN POPULATION PARAMETERS WITH HIGERY AND GIS
 12/23/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: D ROBERTS
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50127 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2892
 MAPPING THE COSMIC MICROWAVE BACKGROUND RADIATION
 09/09/1997 - 06/30/1998 FY99: -\$36 Total: \$21,964
Prin. Invest.: P LUBIN
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50192 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2893
 MEASUREMENT OF CMB ANISOTROPIES FOR DETERMINATION OF COS-
 MOLOGICAL PARAMETERS
 06/05/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: P LUBIN
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 13 - PHYSICS

NAG 2 991 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2894
 TOOLS FOR ANALYSIS & VISUALIZATION OF LARGE TIME-VARYING CFD
 DATA SETS
 07/25/1995 - 07/31/1999 FY99: \$0 Total: \$300,000
Prin. Invest.: J WILHELMS, A VAN GELDER
Tech. Officer: ARC/A VAZIRI, ARC/M G YAMASAKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1239 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2895
 ACCELERATED TIME-VARYING FLOW VISUALIZATION WITH FEATURE
 PRESERVATION
 07/17/1998 - 10/31/1999 FY99: \$17,000 Total: \$117,000
Prin. Invest.: A VANGELDER, J WILHELMS
Tech. Officer: ARC/A VAZIRI, ARC/M GERALD-YAMASAKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2843 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2896
 RADIATION TRANSPORT AND MULTIDIMENSIONAL HYDRODYNAMICS IN
 SUPERNOVAE
 12/14/1994 - 09/30/1998 FY99: -\$37,375 Total: \$178,625
Prin. Invest.: S E WOOSLEY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2984 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2897
 MOUNTAIN SCALE EROSION AND THE POTENTIAL FOR EROSIONALLY
 DRIVEN UPLIFT
 07/07/1995 - 07/14/1999 FY99: \$0 Total: \$100,411
Prin. Invest.: R S ANDERSON
Tech. Officer: GSFC/H V FREY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3005 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2898
 ZCAPE: A COUPLED TECTONIC-GEOMORPHIC LANDSCAPE EVOLUTION
 MODEL
 07/14/1995 - 07/31/1999 FY99: \$0 Total: \$127,000
Prin. Invest.: R ANDERSON
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3059 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2899
 DYNAMICAL PROCESSES AROUND MASSIVE BLACK HOLES IN GALACTIC
 NUCLEI
 10/02/1995 - 09/14/1998 FY99: -\$268 Total: \$119,732
Prin. Invest.: D N LIN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3060 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2900
 INTERSTELLAR GAS AND DUST IN ELLIPTICAL GALAXIES
 09/15/1995 - 04/14/1999 FY99: \$0 Total: \$177,000
Prin. Invest.: W G MATTHEWS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3061 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2901
 TESTING INFLATION AND DARK MATTER WITH MATTER WITH NEW DATA,
 MODELS AND METHODS
 09/06/1995 - 09/14/1998 FY99: -\$333 Total: \$329,667
Prin. Invest.: J R PRIMACK
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3232 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2902
 THE PROPERTIES OF INTERSTELLAR DUST GRAINS IN CIRRHUS CLOUDS
 05/08/1996 - 04/30/2000 FY99: \$0 Total: \$245,895
Prin. Invest.: P GUHATHAKURTA
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3434 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2903
 PRODUCTION DISTRIBUTION AND EVOLUTION OF RADIOACTIVE NUCLEI
 10/01/1996 - 09/30/1997 FY99: -\$3,826 Total: \$51,148
Prin. Invest.: S WOOSLEY, F X TIMMES
Tech. Officer: GSFC/J NORRIS, GSFC/N GEHRELS
CASE Category: 11 - ASTRONOMY

NAG 5 3501 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2904
 A STUDY OF DUST IN AND AROUND GALAXIES
 11/25/1996 - 11/14/1999 FY99: \$78,000 Total: \$242,000
Prin. Invest.: D F ZARITSKY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3507 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2905
 ISO DEEP SURVEY
 10/31/1996 - 11/14/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: D C KOO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3820 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2906
 ORIGIN OF QUASAR ABSORPTION LINES IN A COSMOLOGICAL
 01/14/1997 - 01/14/1999 FY99: -\$29,706 Total: \$50,294
Prin. Invest.: L E HERNQUIST
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4277 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2907
 FORMATION OF GIANT PLANETS
 04/01/1997 - 12/31/1999 FY99: \$7,500 Total: \$90,000
Prin. Invest.: D LIN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4445 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2908
 PHOTON-WEIGHTED MIDPOINT EXPOSURE METER FOR KECK/H
 RESEARCH
 04/25/1997 - 04/30/2000 FY99: \$72,742 Total: \$205,494
Prin. Invest.: D S VOGT
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4494 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2909
 FORMATION AND EARLY EVOLUTION OF SOLAR AND EXTRA-S
 04/30/1997 - 03/31/2000 FY99: \$62,667 Total: \$112,776
Prin. Invest.: D H BODENHEIMER, NONE
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4610 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2910
 MAJOR UNRESOLVED PROBLEMS IN FU ORIONIS SYSTEMS
 05/20/1997 - 05/31/2000 FY99: \$79,167 Total: \$150,000
Prin. Invest.: D H BODENHEIMER
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4665 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2911
 STRUCTURE AND FUNCTION OF ENCAPSULATED REPLICATING
 06/05/1997 - 12/31/1999 FY99: \$140,202 Total: \$340,913
Prin. Invest.: D DEAMER
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4866 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2912
 CLUSTERS OF GALAXIES IN A NEW LIGHT: THE FIRST HIGH RESOLUTION
 06/27/1997 - 01/31/1999 FY99: \$0 Total: \$9,391
Prin. Invest.: A ZABLUDOFF
Tech. Officer: GSFC/R PETRE
CASE Category: 12 - CHEMISTRY

NAG 5 6771 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2913
 THE EVOLUTION OF ISOLATED ELLIPTICAL GALAXIES
 01/21/1998 - 02/01/1999 FY99: \$0 Total: \$16,300
Prin. Invest.: A ZABLUDOFF
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 7245 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2914
 GEOPHYSICS OF SMALL PLANETARY BODIES
 04/15/1998 - 10/14/2000 FY99: \$106,000 Total: \$156,400
Prin. Invest.: E ASPHAUG
Tech. Officer: GSFC/P ROGERS
CASE Category: 11 - ASTRONOMY

NAG 5 7515 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2915
 TIDALLY DRIVEN G-MODE OSCILLATION IN SOLAR-TYPE STARS BY
 CLOSEPLANETARY COMPANIONS
 05/29/1998 - 05/31/2000 FY99: \$53,333 Total: \$95,000
Prin. Invest.: D LIN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8128 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2916
 THREE DIMENSIONAL MODELS FOR GAMMA-RAY BURSTS AND SUPERNO-
 VAES (ATP98)
 02/05/1999 - 02/14/2000 FY99: \$90,000 Total: \$90,000
Prin. Invest.: S E WOOSLEY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8196 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2917
 THE GROWTH OF PROTOGIANT PLANETS IN PROTOSTELLAR DISKS
 02/04/1999 - 01/31/2000 FY99: \$45,000 Total: \$45,000
Prin. Invest.: D N LIN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8218 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2918
 TESTING INFLATION AND DARK MATTER WITH NEW DATA, MODELS, AND
 METHODS(ATP98)
 02/08/1999 - 02/14/2000 FY99: \$206,219 Total: \$206,219
Prin. Invest.: J R PRIMACK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8348 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2919
 THE PROPERTIES OF INTERSTELLAR DUST GRAINS IN IRAS 'CIRRUS'
 CLOUDS(ATP98)
 03/01/1999 - 04/30/2000 FY99: \$49,409 Total: \$49,409
Prin. Invest.: P GUHATHAKURTA
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8409 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2920
 EVOLUTION OF HOT GAS IN ELLIPTICAL GALAXIES (ATP 98)
 03/15/1999 - 03/31/2000 FY99: \$40,000 Total: \$40,000
Prin. Invest.: W G MATHEWS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8750 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2921
 MONITORING ECOSYSTEM CONDITION AND STRESS IN THE SAN PABLO
 BAY, CA REGION
 09/08/1999 - 09/14/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: R KUDELA
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 534 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2922
 TOWARDS A SELF REPLICATING CHEMICAL SYSTEM BASED ON CYTIDYLIC
 AND GUANYLIC ACIDS
 01/15/1988 - 07/14/1999 FY99: \$0 Total: \$905,177
Prin. Invest.: A KANAVARIOTI, C F BERNASCONI
Tech. Officer: ARC/M L FONDA
CASE Category: 12 - CHEMISTRY

NCC 2 649 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2923
 THEORETICAL AND OBSERVATIONAL STUDIES OF STAR AND PLANET
 FORMATION AND PRECURSOR SCIENCE FOR SIRT
 10/16/1989 - 12/31/1998 FY99: \$50,987 Total: \$2,302,571
Prin. Invest.: P H BODENHEIMER
Tech. Officer: ARC/D J HOLLENBACH, ARC/M W WERNER
CASE Category: 11 - ASTRONOMY

NCC 2 928 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2924
 LIVING IN SPACE OR LOW GRAVITY ENVIRONMENTS
 09/12/1995 - 08/31/1998 FY99: -\$250 Total: \$44,766
Prin. Invest.: B BRIDGEMAN
Tech. Officer: ARC/R B WELCH
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 1003 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2925
 DUAL ADAPTATION & ADAPTIVE GENERALIZATION TO REARRANGED
 VISUAL ENVIRONMENTS & ADAPTIVE PERFORMANCE
 08/07/1997 - 08/31/1999 FY99: \$0 Total: \$20,000
Prin. Invest.: B BRIDGEMAN
Tech. Officer: ARC/R B WELCH
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 1037 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2926
 (NAS) AMES EDUCATION ASSOCIATES PROGRAM
 05/08/1998 - 03/31/2000 FY99: \$568,280 Total: \$997,362
Prin. Invest.: D L STANSBURY
Tech. Officer: ARC/Q J HANSEN, ARC/S S LONGSCHAMPS
CASE Category: 99 - MULTIDISCIPL, OTHER

NCC 2 1081 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2927
 STAR & PLANET FORMATION
 01/15/1999 - 10/14/1999 FY99: \$182,951 Total: \$182,951
Prin. Invest.: P H BODENHEIMER
Tech. Officer: ARC/D J HOLLENBACH, ARC/P CASSEN
CASE Category: 11 - ASTRONOMY

NCC 2 5241 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2928
 A NASA-AMES/UCSC INVESTIGATION OF CARBON ISOTOPE ABUNDANCES
 IN ALH84001
 09/30/1997 - 08/31/1999 FY99: \$17,215 Total: \$34,000
Prin. Invest.: G RAU
Tech. Officer: ARC/K J DES MARAIS
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 2 5254 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2929
 PLANETARY RING/MOON SYSTEMS
 02/10/1998 - 02/29/2000 FY99: \$65,202 Total: \$99,202
Prin. Invest.: P BODENHEIMER, D LIN
Tech. Officer: ARC/J N CUZZI
CASE Category: 11 - ASTRONOMY

NCC 2 5273 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2930
 A SEARCH FOR SUPERNOVA IN STAR-BURST GALAXIES
 06/25/1998 - 05/31/2000 FY99: \$0 Total: \$2,880
Prin. Invest.: D M RANK
Tech. Officer: ARC/J D BREGMAN
CASE Category: 11 - ASTRONOMY

NCC 2 5281 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2931
 COMPARATIVE VISUALIZATION OF EXPERIMENTAL WIND TUNNEL DATA &
 COMPUTATIONAL FLUID DYNAMICS SIMULATION
 07/23/1998 - 10/14/1999 FY99: \$20,000 Total: \$95,812
Prin. Invest.: A PANG
Tech. Officer: ARC/A VAZIRI, ARC/M YAMASAKI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5296 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2932
 THE MOLECULAR BASIS OF HYPERTHERMOPHILY
 09/25/1998 - 11/30/1999 FY99: \$49,939 Total: \$59,939
Prin. Invest.: J D TRENT
Tech. Officer: ARC/M L FONDA
CASE Category: 21 - MATHEMATICS

NCC 2 5297 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2933
 DISTRIBUTION OF WATER & WATER-ROCK INTERACTION DURING
 PLANET EVOLUTION
 10/19/1998 - 02/28/2000 FY99: \$27,000 Total: \$27,000
Prin. Invest.: N ROSENBERG
Tech. Officer: ARC/J N CUZZI
CASE Category: 11 - ASTRONOMY

NCC 2 5309 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2934
 FROM PREBIOTIC CHEMISTRY TO AN RNA WORLD
 02/23/1999 - 01/31/2000 FY99: \$58,060 Total: \$58,060
Prin. Invest.: A KANAVARIOTI
Tech. Officer: ARC/A POHORILLE, ARC/M L FONDA
CASE Category: 12 - CHEMISTRY

NCC 2 5339 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2935
 COLLABORATIVE RESEARCH IN STABLE ISOTOPE BIOGEOCHEMISTRY
 07/30/1999 - 12/31/1999 FY99: \$20,000 Total: \$20,000
Prin. Invest.: G H RAU
Tech. Officer: ARC/D J DES MARAIS, ARC/L JAHNKE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 5351 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2936
 SEARCH FOR THE UPPER TEMPERATURE LIMIT FOR EUKARYA - IS THERE
 COMPLEX LIFE BEYOND EARTH?
 09/03/1999 - 08/31/2000 FY99: \$20,000 Total: \$20,000
Prin. Invest.: J PEARSE, J TRENT
Tech. Officer: ARC/M FONDA
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 5 195 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2937
 "DEVELOPMENT OF SILICON-STRIP TRACKER READOUT ELECTRONICS"
 05/30/1997 - 05/31/1999 FY99: \$0 Total: \$371,716
Prin. Invest.: D P JOHNSON
Tech. Officer: GSFC/M DIJOSEPH
CASE Category: 11 - ASTRONOMY

NGT 2 52217 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2938
 BIRTH OF THE SUN: MAGNETIC FIELDS IN PROTOSTELLAR ACCRETION
 DISKS
 07/31/1996 - 09/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: P BODENHEIMER, N J TURNER
Tech. Officer: ARC/R M CASSEN
CASE Category: 11 - ASTRONOMY

NGT 2 52230 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2939
 EFFECTS OF WATER IMMERSION (WEIGHTLESSNESS) ON THE REGULATION
 OF RENAL FUNCTION IN SEALS EXPOSED.
 08/19/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: C L ORTIZ, NONE
Tech. Officer: ARC/C E WADE, ARC/B J CORBIN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 43 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2940
 MULTI-WAVELENGTH STUDY OF THE EVOLUTION OF GALAXIES
 06/23/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: P GUHATHAKURTA
Tech. Officer: GSFC/M S BURRELL
CASE Category: 11 - ASTRONOMY

NGT 5 30074 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2941
 THE EVOLUTION OF STREAM CHANNELS IN A PROGRESSIVE NEOTECTONIC
 TERRAIN, PAU NEW GUINEA
 09/09/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: D SILVER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI-INTERDISCIPL, OTHER

NGT 5 30112 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2942
 EROSION AND SEDIMENT FLUXES BY VALLEY GLACIERS THROUGH THE
 CLIMATE CYCLE: LINKS BETWEEN ALPINE
 08/28/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R S ANDERSON
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 90077 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2943
 GRIPS: PHYSICAL MECHANISMS FOR LONG-TERM CLIMATE VARIATION
 09/08/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: G VALLIS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI-INTERDISCIPL, OTHER

NAG 8 1120 UNIVERSITY OF SAN DIEGO 2944
 JOVE
 12/21/1994 - 09/30/1998 FY99: -\$32 Total: \$70,967
Prin. Invest.: A STURZ, S C GRAY
Tech. Officer: MSFC/F SIX
CASE Category: 33 - OCEANOGRAPHY

NCC 5 308 UNIVERSITY OF SAN DIEGO 2945
 CREATIVE & INNOVATIVE WORKING PHOTOTYPE EARTH SCIENCE INFOR.
 PARTNERSHIP IN SUPPORT OF EARTH
 01/15/1998 - 02/14/2001 FY99: \$400,000 Total: \$700,000
Prin. Invest.: J J SIMPSON
Tech. Officer: GSFC/M MAIDEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4154 UNIVERSITY OF SAN FRANCISCO 2946
 HIGH LET PASSIV SPACE
 09/21/1994 - 09/30/1997 FY99: \$0 Total: \$200,000
Prin. Invest.: E U BENTON
Tech. Officer: HQ/F SULZMAN
CASE Category: 56 - MEDICL

NCC 2 893 UNIVERSITY OF SAN FRANCISCO 2947
 ENVIRONMENTAL RADIATION MEASUREMENTS ON THE MIR SP ACE STA-
 TION
 03/27/1995 - 12/31/1999 FY99: \$0 Total: \$601,588
Prin. Invest.: E V BENTON, A L FRANK, R P KEEGAN
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 1 1996 UNIVERSITY OF SOUTHERN CALIFORNIA 2948
 TURBULENCE EFFECTS ON VERY LARGE FLIGHT VEHICLES.
 01/23/1998 - 01/31/2001 FY99: \$67,000 Total: \$132,000
Prin. Invest.: P B LISSAMAN
Tech. Officer: LARC/J R CURZ
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 864 UNIVERSITY OF SOUTHERN CALIFORNIA 2949
 COORDINATION OF EVOLVING CONVENTIONS ENABLING SHAR ING OF
 KNOWLEDGE
 08/06/1993 - 02/29/2000 FY99: \$0 Total: \$1,481,516
Prin. Invest.: S LAU, NONE
Tech. Officer: ARC/P E FRIEDLAND
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1256 UNIVERSITY OF SOUTHERN CALIFORNIA 2950
 LEARNING & ADAPTATION IN DEXTEROUS ROBOTS
 09/04/1998 - 10/31/1998 FY99: \$0 Total: \$31,000
Prin. Invest.: S SCHAAAL
Tech. Officer: ARC/C C JORGENSEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1264 UNIVERSITY OF SOUTHERN CALIFORNIA 2951
 NEUROTECHNOLOGY-BASED MULTI-AGENT/ROBOT RESEARCH
 09/16/1998 - 08/31/1999 FY99: \$0 Total: \$18,835
Prin. Invest.: M MATARIC
Tech. Officer: ARC/M H SIMS, ARC/J A SCHREINER
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 1611 UNIVERSITY OF SOUTHERN CALIFORNIA 2952
 FLOW AND AMBIENT ATMOSPHERE EFFECTS ON FLAME SPREA D AT
 MICROGRAVITY
 06/01/1994 - 11/30/1998 FY99: \$0 Total: \$325,999
Prin. Invest.: P D RONNEY
Tech. Officer: GRC/S C OLSON, GRC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1615 UNIVERSITY OF SOUTHERN CALIFORNIA 2953
 AERODYNAMICS, UNSTEADY, KINETIC AND HEAT LOSS EFFE FTS ON THE
 DYNAMICS & STRUCTURE OF WEAKLY- BURNIN
 06/15/1994 - 12/31/1998 FY99: \$0 Total: \$329,956
Prin. Invest.: F N EGOLFOPOULOS
Tech. Officer: GRC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1842 UNIVERSITY OF SOUTHERN CALIFORNIA 2954
 GROUND BASED STUDIES OF INTERNAL FLOWS IN LEVIATED LASER -
 HEATED DROPS
 05/03/1996 - 05/31/2000 FY99: \$120,000 Total: \$365,000
Prin. Invest.: S S SADHAL
Tech. Officer: GRC/B S SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1877 UNIVERSITY OF SOUTHERN CALIFORNIA 2955
 DETAILED STUDIES ON THE STRUCTURE AND DAYNAMICS OF REACTING
 DUSTING FLOWS IN NORMAL AND MICROGRAVITY
 06/01/1996 - 05/31/2000 FY99: \$84,133 Total: \$337,583
Prin. Invest.: P N EGOLFOPOULOS, P S CAMPBELL
Tech. Officer: GRC/D D ROSS, GRC/M A SOCKSTEILER
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2124 UNIVERSITY OF SOUTHERN CALIFORNIA 2956
 STRUCTURE OF FLAME BALLS IN LOW LEWIS NUMBER STRUCTURE OF
 FLAME BALLS IN LOW LEWIS NUMBER
 02/10/1998 - 01/07/2001 FY99: \$209,600 Total: \$411,100
Prin. Invest.: P D RONNEY
Tech. Officer: GRC/K J WEILAND
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2125 UNIVERSITY OF SOUTHERN CALIFORNIA 2957
 THE DYNAMICS OF MISCIBLE INTERFACES: A SPACE FLIG HT EXPERIMENT
 02/25/1998 - 12/31/2002 FY99: \$150,000 Total: \$273,000
Prin. Invest.: T MAXWORTHY, E H MEIBURG
Tech. Officer: GRC/B SIGH
CASE Category: 46 - MECHANICAL ENGR

NAG 5 2313 UNIVERSITY OF SOUTHERN CALIFORNIA 2958
 LONG-TERM FUV FLUX AND WIND VARIABILITY IN BE STAR S AND MULTI-
 WAVELENGTH OBS. ATEQUATOR-ON
 07/12/1993 - 07/14/2000 FY99: -\$670 Total: \$24,330
Prin. Invest.: G J PETERS
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 3113 UNIVERSITY OF SOUTHERN CALIFORNIA 2959
 DEVELOPEMENT OF ALGORITHMS OF PHYTOPLANKTON BIO- MASS, PRI-
 MARY PRODUCTION AND ZOOPLANKTON BIOMASS..
 10/19/1995 - 10/31/1997 FY99: -\$185 Total: \$154,420
Prin. Invest.: D A KIEFER
Tech. Officer: GSFC/K R ARRIGO, GSFC/C R MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NAG 5 3429 UNIVERSITY OF SOUTHERN CALIFORNIA 2960
 THE ABUNDANCES OF THE IRON GROUP ELEMENTS IN EARLY B STARS
 10/21/1996 - 10/31/1999 FY99: \$0 Total: \$65,300
Prin. Invest.: G J PETERS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4159 UNIVERSITY OF SOUTHERN CALIFORNIA 2961
 ATOMIC AND MOLECULAR PROCESSES IN THE IO PLASMA TO
 03/26/1997 - 12/31/1997 FY99: -\$78 Total: \$59,922
Prin. Invest.: P E SHEMANSKY
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4488 UNIVERSITY OF SOUTHERN CALIFORNIA 2962
 EUVE OBSERVATIONS OF ACTIVE B STARS
 06/04/1997 - 05/31/2000 FY99: \$0 Total: \$17,366
Prin. Invest.: G J PETERS
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 4539 UNIVERSITY OF SOUTHERN CALIFORNIA 2963
 "FEATHERWEIGHT" OPTICS FREE EUV SPECTROMETER FOR P MISSIONS
 05/06/1997 - 05/31/1999 FY99: -\$90 Total: \$124,516
Prin. Invest.: D L JUDGE
Tech. Officer: GSFC/C CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4591 UNIVERSITY OF SOUTHERN CALIFORNIA 2964
 OUTER PLANETS UPPER ATMOSPHERE/MAGNETOSPHERE RESEA
 05/09/1997 - 12/31/1999 FY99: \$60,000 Total: \$180,000
Prin. Invest.: P E SHEMANSKY
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5018 UNIVERSITY OF SOUTHERN CALIFORNIA 2965
 ROCKET UNDERFLIGHTS FOR SOHO CROSS-CALIBRATION AND SOLAR
 ATMOSPHERE INVESTIGATIONS
 02/28/1994 - 02/29/2000 FY99: \$225,898 Total: \$1,480,985
Prin. Invest.: D J JUDGE
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6104 UNIVERSITY OF SOUTHERN CALIFORNIA 2966
 HELIOSEISMOLOGICAL STUDIES OF THE STRUCTURE AND DY
 ATMOSPHERE AND INTERIOR
 07/24/1997 - 12/31/1998 FY99: \$0 Total: \$104,000
Prin. Invest.: D RHODES
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6121 UNIVERSITY OF SOUTHERN CALIFORNIA 2967
 STUDY OF NEUTRAL GAS AND DUST IN THE SUN'S VICINITY
 08/13/1997 - 12/31/1998 FY99: -\$495 Total: \$34,432
Prin. Invest.: D A GRUNTMAN
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6216 UNIVERSITY OF SOUTHERN CALIFORNIA 2968
 EQUATION OF STATE STUDIES USING SOHO DATA
 08/21/1997 - 07/31/1998 FY99: \$0 Total: \$49,444
Prin. Invest.: D DAPPEN
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6360 UNIVERSITY OF SOUTHERN CALIFORNIA 2969
 OCEAN COLOR ALGORITHMS FOR PHOTOSYNTHETIC RATE AND BIO-OP-
 TICAL COMPONENT
 10/24/1997 - 09/14/2000 FY99: \$50,000 Total: \$385,089
Prin. Invest.: D A KIEFER
Tech. Officer: GSFC/J A YODER
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6512 UNIVERSITY OF SOUTHERN CALIFORNIA 2970
 OPTICAL AND ANCILLARY MEASUREMENTS AT HIGH LATITUDES IN SUP-
 PORT OF THE MODIS OCEAN VALIDATION PROG
 12/05/1997 - 09/30/2000 FY99: \$38,789 Total: \$149,707
Prin. Invest.: M STRAMSKA
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICALSCIENCE, OTHER

NAG 5 6621 UNIVERSITY OF SOUTHERN CALIFORNIA 2971
 PHOTON ABSORPTION & EMISSION STUDIES OF ATMOSPHERIC GASES
 11/18/1997 - 09/30/1998 FY99: \$0 Total: \$69,321
Prin. Invest.: D JUDGE
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6696 UNIVERSITY OF SOUTHERN CALIFORNIA 2972
 AN INVESTIGATION OF THE HIGH TEMPERATURE CIRCUMSTELLAR
 PLASMA IN ALGOL-TYPE INTERACTING BINARIES
 12/17/1997 - 12/31/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: G PETERS
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 6940 UNIVERSITY OF SOUTHERN CALIFORNIA 2973
 ION REACTION PROPERTIES IN THE OUTER PLANETS AND COMETS
 01/30/1998 - 12/31/1998 FY99: \$0 Total: \$50,000
Prin. Invest.: D SHEMANSKY
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 6966 UNIVERSITY OF SOUTHERN CALIFORNIA 2974
 PHYSICAL PROCESSES AT THE HELIOSPHERIC BOUNDARY AND THEIR
 DETECTABLE SIGNATURES AT 1 AU. A THEORET
 03/05/1998 - 02/29/2000 FY99: \$20,000 Total: \$40,000
Prin. Invest.: M A GRUNTMAN
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 7117 UNIVERSITY OF SOUTHERN CALIFORNIA 2975
 EUV OBSERVATIONS OF EARLY B STARS: EUV FLUX VARIABILITY IN BETA
 CMA THROUGHTOUT ITS BEAT PERIOD
 04/13/1998 - 04/14/2000 FY99: \$0 Total: \$11,520
Prin. Invest.: G J PETERS
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 7147 UNIVERSITY OF SOUTHERN CALIFORNIA 2976
 MINIATURIZED OPTICS FREE EUV ARRAY SPECTROMETER TO PROVIDE
 STABLE SOLAR EUV SPECTRA
 03/23/1998 - 04/14/2000 FY99: \$115,254 Total: \$170,028
Prin. Invest.: D L JUDGE
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7222 UNIVERSITY OF SOUTHERN CALIFORNIA 2977
 CROSS-CORRELATION ANALYSIS OF UV PROFILE VARIATIONS AND NON-RADIAL PULSATIONS IN BE STARS
 04/10/1998 - 04/14/2000 FY99: \$11,400 Total: \$22,400
 Prin. Invest.: G PETERS
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7243 UNIVERSITY OF SOUTHERN CALIFORNIA 2978
 A QUANTITATIVE FINGERPRINT OF OCEAN COLOR VARIABILITY IN YELLOW SEA DURING APRIL 1998 CRUISE
 04/10/1998 - 02/28/1999 FY99: \$0 Total: \$38,976
 Prin. Invest.: R ITURRIAGA
 Tech. Officer: GSFC/J W CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7352 UNIVERSITY OF SOUTHERN CALIFORNIA 2979
 EQUATION OF STATE STUDIES USING SOHO DATA
 04/29/1998 - 06/30/1999 FY99: \$0 Total: \$43,975
 Prin. Invest.: W DAPPEN
 Tech. Officer: GSFC/A POLAND
 CASE Category: 13 - PHYSICS

NAG 5 7369 UNIVERSITY OF SOUTHERN CALIFORNIA 2980
 ANALYSIS OF SOLAR EUV AND SOFT X-RAY EMISSION VARIATION OBSERVED FROM THE CELIAS/SEM ABOARD SOHO
 05/06/1998 - 10/31/1999 FY99: \$0 Total: \$47,207
 Prin. Invest.: H S OGAWA
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 7816 UNIVERSITY OF SOUTHERN CALIFORNIA 2981
 APPLICATIONS OF THE FILTER DIAGONALIZATION SPECTRAL ESTIMATOR IN HELIOSEISMOLOGY
 12/14/1998 - 12/14/1999 FY99: \$49,706 Total: \$49,706
 Prin. Invest.: W DAPPEN
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7902 UNIVERSITY OF SOUTHERN CALIFORNIA 2982
 EQUATION OF STATE STUDIES USING SOHO DATA
 12/10/1998 - 06/30/2000 FY99: \$45,728 Total: \$45,728
 Prin. Invest.: W DAPPEN
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8021 UNIVERSITY OF SOUTHERN CALIFORNIA 2983
 STUDIES OF SOLAR INTERNAL STRUCTURE AND DYNAMICS USING HIGH DEGREE-POLYMODE OBSERVATIONS FROM THE
 01/22/1999 - 03/31/2000 FY99: \$63,000 Total: \$63,000
 Prin. Invest.: E J RHODES
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 11 - ASTRONOMY

NAG 5 8274 UNIVERSITY OF SOUTHERN CALIFORNIA 2984
 PHOTON ABSORPTION STUDIES OF ATMOSPHERIC GASES UNDER IN-SITU CONDITIONS
 04/06/1999 - 09/30/1999 FY99: \$50,000 Total: \$50,000
 Prin. Invest.: D JUDGE
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 8309 UNIVERSITY OF SOUTHERN CALIFORNIA 2985
 REMOTE OPTICAL MEASUREMENTS OF NEAR-SURFACE TURBULENCE FOR THE OCEAN-AIR GAS EXCHANGE: A THEORETICAL
 03/08/1999 - 04/30/2000 FY99: \$30,000 Total: \$30,000
 Prin. Invest.: D BOGUCKI
 Tech. Officer: GSFC/J CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8367 UNIVERSITY OF SOUTHERN CALIFORNIA 2986
 THE ABUNDANCES OF THE IRON GROUP ELEMENTS IN EARLY B STARS (ADP98)
 03/01/1999 - 02/29/2000 FY99: \$38,889 Total: \$38,889
 Prin. Invest.: G PETERS
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8445 UNIVERSITY OF SOUTHERN CALIFORNIA 2987
 REMOTE SENSING DETECTION AND ANALYSIS OF STORMWATER PLUMES IN SANTAMONICA BAY, CALIFORNIA
 04/07/1999 - 03/31/2000 FY99: \$101,031 Total: \$101,031
 Prin. Invest.: B H JONES
 Tech. Officer: GSFC/J W CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8545 UNIVERSITY OF SOUTHERN CALIFORNIA 2988
 STUDIES OF TEMPORAL CHANGES IN SOLAR INTERNAL STRUCTURE & DYNAMICS USING OBSERVATIONS OF INTERM
 05/13/1999 - 04/30/2000 FY99: \$92,682 Total: \$92,682
 Prin. Invest.: E J RHODES
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 8 1240 UNIVERSITY OF SOUTHERN CALIFORNIA 2989
 NUMERICAL & LABORATORY EXPERIMENTS ON INTERACTIVE DYNAMICS OF CONVECTION & DIRECTIONAL SOLIDIFICATION
 04/15/1996 - 04/14/2000 FY99: \$124,999 Total: \$374,998
 Prin. Invest.: T MAXWORTHY, E MEIBURG
 Tech. Officer: MSFC/P DOTY
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 2 96009 UNIVERSITY OF SOUTHERN CALIFORNIA 2990
 MEMBERSHIP TO THE IMSC
 08/13/1996 - 07/31/1999 FY99: \$0 Total: \$300,000
 Prin. Invest.: C L NIKIAS
 Tech. Officer: ARC/H LUM
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 8 97115 UNIVERSITY OF SOUTHERN CALIFORNIA 2991
 USC RTTC
 01/30/1997 - 12/31/1999 FY99: \$1,339,000 Total: \$3,739,001
 Prin. Invest.: G BEKEY
 Tech. Officer: ARC/C CASTELLANO
 CASE Category: 42 - AERONAUTICAL ENGR

NCC 1 276 UNIVERSITY OF SOUTHERN CALIFORNIA 2992
 EXPERIMENTAL INVESTIGATION OF BOUNDARY LAYER INGESTION
 03/18/1998 - 12/31/1998 FY99: \$12,144 Total: \$87,144
 Prin. Invest.: R F BLACKWELDER, P S LISSAMAN
 Tech. Officer: LARC/B L BERRIER, LARC/C A HUNTER
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 501 UNIVERSITY OF SOUTHERN CALIFORNIA 2993
 THE HIGH-LEWIS NUMBER DIFFUSIVE-THERMAL INSTABILITY IN PRE-
 MIXED GAS COMBUSTION & LOW TEMPERATURE HY
 09/05/1996 - 09/04/2000 FY99: \$120,849 Total: \$337,558
Prin. Invest.: H G PEARLMAN
Tech. Officer: GRC/D W GRIFFIN
CASE Category: 46 - MECHANICAL ENGR

NCC 3 671 UNIVERSITY OF SOUTHERN CALIFORNIA 2994
 TRANSPORT AND CHEMICAL EFFECTS ON CONCURRENT AND OPPOSED-
 FLOW FLAME SPREAD AT MICROGRAVITY
 02/12/1999 - 01/03/2003 FY99: \$120,000 Total: \$120,000
Prin. Invest.: P D RONNEY
Tech. Officer: GRC/S A GOKOGLU
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 678 UNIVERSITY OF SOUTHERN CALIFORNIA 2995
 QUANTITATIVE STUDIES ON THE PROPAGATION AND EXTINCTION OF
 NEAR-LIMIT FLAMES UNDER NORMAL AND MICROGRAVITY
 03/01/1999 - 11/29/2002 FY99: \$105,000 Total: \$105,000
Prin. Invest.: F N EGOLFOPOLUOS
Tech. Officer: GRC/K R SACKSTEDER
CASE Category: 49 - ENGINEERING, OTHER

NGT 3 52336 UNIVERSITY OF SOUTHERN CALIFORNIA 2996
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/19/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: J SILVESTER
Tech. Officer: GRC/F MONTAGANI
CASE Category: 45 - ELECTRICAL ENGR

NSG 5108 UNIVERSITY OF SOUTHERN CALIFORNIA 2997
 ROCKET EXPERIMENTS TO MEASURE THE SOLAR SPECTRAL PROFILE &
 INTENSITY
 04/01/1976 - 10/31/1999 FY99: \$0 Total: \$2,995,409
Prin. Invest.: D L JUDGE, H S OGAWA
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NSG 5422 UNIVERSITY OF SOUTHERN CALIFORNIA 2998
 A COMPARATIVE STUDY OF THE LAR ULTRAVIOLET SPECTRA OF BE
 STARS
 10/15/1979 - 01/31/1998 FY99: \$0 Total: \$357,240
Prin. Invest.: G J PETERS, R S POLIDAN, J RPERCY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

COLORADO

NCC 2 5337 ADAMS STATE COLLEGE 2999
 ENHANCEMENT OF AMPHION
 07/23/1999 - 07/31/2000 FY99: \$50,044 Total: \$50,044
Prin. Invest.: S ROACH
Tech. Officer: ARC/M R LOWRY, ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NAG 8 1226 COLORADO COLLEGE 3000
 JOVE
 02/22/1996 - 08/31/1998 FY99: -\$23,875 Total: \$36,125
Prin. Invest.: C E FOSHA, M F AUGUSTEIJN
Tech. Officer: MSFC/D SIX
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 3 1628 COLORADO SCHOOL OF MINES 3001
 COMBUSTION OF PTIE: THE EFFECTS OF GRAVITY ON ULT RAFFINE PAR-
 TICLE GENERATION
 06/24/1994 - 09/30/1998 FY99: \$0 Total: \$469,000
Prin. Invest.: J T MCKINNON
Tech. Officer: GRC/R FRIEDMAN, GRC/H D ROSS
CASE Category: 43 - CHEMICAL ENGR

NAG 3 1698 COLORADO SCHOOL OF MINES 3002
 STUDY OF COMBUSTION SYNTHESIS OF CERAMIC-METAL COMPOSITE
 MATERIALS UNDER MICROGRAVITY CONDITIONS - P
 01/19/1995 - 11/30/1998 FY99: \$0 Total: \$441,143
Prin. Invest.: J J MOORE
Tech. Officer: GRC/S GOKOGLU
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1970 COLORADO SCHOOL OF MINES 3003
 NMRI MEASUREMENTS & GRANULAR DYNAMICS SIMULATIONS OF SEG-
 REGATION OF GRANULAR MIXTURES
 09/25/1996 - 10/31/1999 FY99: \$149,862 Total: \$478,034
Prin. Invest.: M NAKAGAWA, E FUKUSHIMA
Tech. Officer: GRC/B SINGH
CASE Category: 46 - MECHANICAL ENGR

NCC 3 659 COLORADO SCHOOL OF MINES 3004
 A FUNDAMENTAL STUDY OF THE COMBUSTION SYNTHESIS OF CERAMIC-
 METAL COMPOSITE MATERIALS UNDER MICROGRAVITY
 01/05/1999 - 11/11/2002 FY99: \$120,000 Total: \$120,000
Prin. Invest.: D J MOORE
Tech. Officer: GRC/S A GOKOGLU
CASE Category: 49 - ENGINEERING, OTHER

NCCW 96 COLORADO SCHOOL OF MINES 3005
 THE CENTER FOR COMMERCIAL APPLICATIONS OF COMBUSTION IN
 SPACE
 05/01/1996 - 10/31/1999 FY99: \$3,100,000 Total: \$5,518,613
Prin. Invest.: F SCHOWENGERDT
Tech. Officer: HQ/M NALL
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 1703 COLORADO STATE UNIVERSITY 3006
 LARGE EDDY SIMULATION OF CIRRUS CLOUDS
 04/24/1995 - 04/30/1999 FY99: \$0 Total: \$94,079
Prin. Invest.: W R COTTON
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2045 COLORADO STATE UNIVERSITY 3007
 LARGE EDDY SIMULATION OF CIRRUS CLOUDS
 04/02/1998 - 04/30/2001 FY99: \$32,000 Total: \$66,463
Prin. Invest.: W COTTON
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2062 **COLORADO STATE UNIVERSITY** **3008**
 A NEW APPROACH TO THE REMOTE SENSING OF CIRRUS CLOUD PARAMETERS USING SUB-MILLIMETER RADIOMETER AND
 05/18/1998 - 05/07/1999 FY99: \$0 Total: \$28,859
Prin. Invest.: G STEPHENS
Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2063 **COLORADO STATE UNIVERSITY** **3009**
 STUDIES OF ICE NUCLEATING AEROSOL PARTICLES IN ARCTIC CLOUD SYSTEMS
 05/19/1998 - 02/28/2001 FY99: \$64,000 Total: \$160,906
Prin. Invest.: D C ROGERS, J P DEMOTT
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2080 **COLORADO STATE UNIVERSITY** **3010**
 RADIATIVE SIGNIFICANCE OF MIDDLE AND UPPER TROPOSPHERIC CLOUDS
 06/23/1998 - 09/30/1999 FY99: \$0 Total: \$118,258
Prin. Invest.: S K COX
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2081 **COLORADO STATE UNIVERSITY** **3011**
 INTERACTIONS OF THE CLOUDY ARCTIC BOUNDARY LAYER WITH VARIABLE SURFACE CONDITIONS
 06/23/1998 - 04/30/1999 FY99: \$63,000 Total: \$138,000
Prin. Invest.: D A RANDALL
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1801 **COLORADO STATE UNIVERSITY** **3012**
 ADVANCED ELECTRIC PROPULSION RESEARCH
 01/23/1996 - 10/09/1999 FY99: \$49,906 Total: \$135,013
Prin. Invest.: P J WILBUR
Tech. Officer: GRC/V K RAWLIN
CASE Category: 13 - PHYSICS

NAG 5 3449 **COLORADO STATE UNIVERSITY** **3013**
 WATER VAPOR IN THE CLIMATE SYSTEM (RTOP # 148-65-
 11/05/1996 - 10/31/1999 FY99: \$300,000 Total: \$900,000
Prin. Invest.: G L STEPHENS
Tech. Officer: GSFC/J C DODGE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3768 **COLORADO STATE UNIVERSITY** **3014**
 HZE RADIATION GENOTOXICITY IN CULTURED MAMMALIAN C
 02/06/1997 - 08/31/1999 FY99: \$0 Total: \$259,588
Prin. Invest.: C A WALDREN
Tech. Officer: GSFC/S SCHIMMERLING
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4073 **COLORADO STATE UNIVERSITY** **3015**
 CLIMATE SENSITIVITY OF THAW LAKE SYSTEMS ON THE AL
 03/17/1997 - 12/31/1999 FY99: \$0 Total: \$25,335
Prin. Invest.: D LISTON
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4646 **COLORADO STATE UNIVERSITY** **3016**
 TITLE: USING MULTI-SENSOR DATA TO MODEL FACTORS IN GLOBAL ARID & SEMIARID LANDS
 06/17/1997 - 05/31/2000 FY99: \$558,490 Total: \$1,740,780
Prin. Invest.: D OJIMA
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4749 **COLORADO STATE UNIVERSITY** **3017**
 ANALYSIS OF THE DIURNAL CYCLE OF PRECIPITATION AND RADIATIVE FORCING USING TRMM PRODUCTS
 06/26/1997 - 06/30/2000 FY99: \$119,000 Total: \$357,534
Prin. Invest.: D RANDALL
Tech. Officer: GSFC/O THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4754 **COLORADO STATE UNIVERSITY** **3018**
 VALIDATION STUDIES AND ALGORITHM REFINEMENT IN SUP
 06/17/1997 - 05/31/2000 FY99: \$175,030 Total: \$467,030
Prin. Invest.: S A RUTLEDGE
Tech. Officer: GSFC/R A ALDER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4760 **COLORADO STATE UNIVERSITY** **3019**
 RECONSTRUCTING SNOW-DEPTH DISTRIBUTIONS USING MODIS AND A REGIONAL ATMOSPHERIC MODEL
 06/09/1997 - 09/30/1997 FY99: -\$29 Total: \$24,971
Prin. Invest.: G E LISTON
Tech. Officer: GSFC/D K HALL
CASE Category: 55 - AGRICULTURE

NAG 5 4983 **COLORADO STATE UNIVERSITY** **3020**
 THE BIO-ATMOSPHERIC CYCLES OF NITROGEN AND CARBON: POLLUTION AND TERRESTRIAL ECOSYSTEMS
 08/29/1997 - 07/31/2000 FY99: \$30,000 Total: \$82,500
Prin. Invest.: W PARTON
Tech. Officer: HQ/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5188 **COLORADO STATE UNIVERSITY** **3021**
 WORKSHOP ON THE DEVELOPMENT OF A TEMPERATE EAST AS DATA-BASE
 07/18/1997 - 07/31/1998 FY99: -\$560 Total: \$34,440
Prin. Invest.: D OJIMA
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6228 **COLORADO STATE UNIVERSITY** **3022**
 VEMAP PHASE II
 09/11/1997 - 06/30/2000 FY99: \$175,730 Total: \$377,912
Prin. Invest.: D OJIMA
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6637 **COLORADO STATE UNIVERSITY** **3023**
 ASSESSING THE IMPACT OF REMOTE SENSING DATA ON CLOUDINESS PREDICTION IN SHORT-TERM FORECASTS
 11/18/1997 - 10/31/1999 FY99: \$0 Total: \$363,318
Prin. Invest.: P L STEPHENS
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7558 COLORADO STATE UNIVERSITY 3024
 SNOW HYDROLOGY-THE PARAMETERIZATION OF SUBGRID PROCESSES
 WITHIN A PHYSICALLY BASED SNOW ENERGY
 07/02/1998 - 06/30/2001 FY99: \$0 Total: \$51,313
Prin. Invest.: K ELDER
Tech. Officer: GSFC/ET ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7560 COLORADO STATE UNIVERSITY 3025
 A SNOW-EVOLUTION MODELING-SYSTEM FOR WEATHER, CLIMATE, AND
 HYDROLOGIC APPLICATIONS
 06/29/1998 - 06/30/2001 FY99: \$0 Total: \$320,000
Prin. Invest.: G E LISTON
Tech. Officer: GSFC/ET ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7717 COLORADO STATE UNIVERSITY 3026
 IMPROVING TRMM GV & FC GOALS USING POLARIMETRIC RADAR ANAL-
 YSES WITHIN-SITU GROUND-BASED AND AIRCRAFT P
 10/27/1998 - 10/31/1999 FY99: \$100,000 Total: \$100,000
Prin. Invest.: V N BRINGI
Tech. Officer: GSFC/OW THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7719 COLORADO STATE UNIVERSITY 3027
 TOWARDS A MULTISENSOR APPROACH TO IMPROVE ON CURRENT TRMM
 RETRIEVALS OF CLOUDS AND PRECIPITATION
 10/27/1998 - 10/31/1999 FY99: \$85,205 Total: \$85,205
Prin. Invest.: G L STEPHENS
Tech. Officer: GSFC/OW THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7783 COLORADO STATE UNIVERSITY 3028
 MODELED AEROSOL OPTICAL PROPERTIES FROM MEASUREMENT-
 BASED MIXTURES OF CHEMICAL SPECIES-ASSESSING THE
 11/03/1998 - 10/31/1999 FY99: \$100,000 Total: \$100,000
Prin. Invest.: S M KREIDENWEIS
Tech. Officer: GSFC/M MISHCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7876 COLORADO STATE UNIVERSITY 3029
 TRMM PRECIPITATION RADAR AND MICROPHYSICS: INTERPRETATION
 AND PRECIPITATION ESTIMATION
 11/30/1998 - 11/30/1999 FY99: \$80,000 Total: \$80,000
Prin. Invest.: V CHANDRASEKAR
Tech. Officer: GSFC/OW THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8705 COLORADO STATE UNIVERSITY 3030
 NET CARBON & ENERGY BALANCE OF SAVANNA ECOSYSTEMS AT EOS
 VALIDATION SITES IN SOUTHERN AFRICA
 07/21/1999 - 06/30/2000 FY99: \$170,000 Total: \$170,000
Prin. Invest.: N HANAN
Tech. Officer: GSFC/DE WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1511 COLORADO STATE UNIVERSITY 3031
 COUPLING ATMOSPHERIC, ECOLOGIC, AND HYDROLOGIC PROCESSES IN
 A REGIONAL CLIMATE MODEL
 03/05/1998 - 03/01/2002 FY99: \$114,674 Total: \$238,533
Prin. Invest.: R A PIELKE, G E LISTON
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1615 COLORADO STATE UNIVERSITY 3032
 R/S PROCEEDS HOLLOW CATHODE PLASMA CONTACTOR PERFORMANCE
 TEST
 06/30/1999 - 07/31/1999 FY99: \$16,105 Total: \$16,105
Prin. Invest.: P J WILBUR
Tech. Officer: MSFC/J VAUGHN
CASE Category: 46 - MECHANICAL ENGR

NAG 9 1057 COLORADO STATE UNIVERSITY 3033
 A WATER REUSE SYSTEM FOR PIKE'S PEAK COLORADO
 11/30/1998 - 11/30/1999 FY99: \$22,185 Total: \$22,185
Prin. Invest.: T G SANDERS
Tech. Officer: JSC/M B EDEEN
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 10 234 COLORADO STATE UNIVERSITY 3034
 GRAVITY INDUCED CHANGES IN GENE EXPRESSION
 09/22/1997 - 03/31/2000 FY99: \$111,000 Total: \$283,340
Prin. Invest.: A N REDDY
Tech. Officer: KSC/W M KNOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAS 1 19951 COLORADO STATE UNIVERSITY 3035
 SCIENCE SUPPORT TO THE LITE SCIENCE TEAM
 07/20/1993 - 10/19/1999 FY99: \$0 Total: \$236,999
Prin. Invest.: D RANDALL
Tech. Officer: LARC/G L MADDREA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 98125 COLORADO STATE UNIVERSITY 3036
 CLOUDS AND THE EARTH'S ENERGY SYSTEM (CERES) SCIENTIFIC IN-
 VESTIGATION
 10/28/1998 - 10/27/1999 FY99: \$150,000 Total: \$150,000
Prin. Invest.: D A
Tech. Officer: LARC/B A WIELICKI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 99103 COLORADO STATE UNIVERSITY 3037
 ALGORITHM AND INSTRUMENT SUPPORT ACTIVITIES FOR PICASSO-CENA
 05/17/1999 - 05/16/2001 FY99: \$8,000 Total: \$8,000
Prin. Invest.: G L STEPHENS, C PLATT
Tech. Officer: LARC/G GIBSON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 3 26410 COLORADO STATE UNIVERSITY 3038
 ACTS PROPAGATION EXPERIMENTS
 05/19/1993 - 09/30/1999 FY99: \$29,864 Total: \$510,905
Prin. Invest.: V N BRINGI
Tech. Officer: GRC/R J GUNDERMAN
CASE Category: 41 - AERONAUTICAL ENGR

NAS 5 31730 COLORADO STATE UNIVERSITY 3039
 EOS - BIOSPHERE - ATMOSPHERE INTERACTION* STUDY
 10/18/1991 - 04/30/2000 FY99: \$238,300 Total: \$1,539,850
Prin. Invest.: D RANDALL
Tech. Officer: GSFC/P SELLERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 97082 COLORADO STATE UNIVERSITY 3040
 A STUDY OF THE ROLE OF CLOUDS IN THE RELATIONSHIP BETWEEN LAND
 USE/LAND COVER AND THE CLIMATE
 11/21/1996 - 11/20/1999 FY99: \$0 Total: \$172,624
Prin. Invest.: S Q KIDDER
Tech. Officer: MSFC/T MILLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 907 COLORADO STATE UNIVERSITY 3041
 A CRITICAL ANALYSIS OF EDUCATION & SCIENCE COMMUNICATION PRO-
 GRAMS IN THE SPACE LIFE SCIENCES
 07/17/1995 - 02/28/1999 FY99: \$0 Total: \$1,463,099
Prin. Invest.: G R COULTER
Tech. Officer: ARC/R A GRAYMES
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 1099 COLORADO STATE UNIVERSITY 3042
 AN EXTENDED ANALYSIS OF SCIENCE OUTREACH PROGRAMS IN THE
 SPACE LIFE SCIENCES IMPLEMENTED NASA IN PAR
 03/16/1999 - 11/30/1999 FY99: \$564,156 Total: \$564,156
Prin. Invest.: G R COULTER
Tech. Officer: ARC/R A GRAYMES, ARC/M M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 5 284 COLORADO STATE UNIVERSITY 3043
 SPATIAL INTEGRATION OF REGIONAL CARBON BALANCE IN AMAZONIA
 06/25/1998 - 12/31/1999 FY99: \$183,643 Total: \$294,173
Prin. Invest.: A DENNING
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 288 COLORADO STATE UNIVERSITY 3044
 JOINT RESEARCH STUDIES ON EARTH-ATMOSPHERIC PROBLEMS
 06/05/1998 - 03/31/2000 FY99: \$103,707 Total: \$219,650
Prin. Invest.: G L STEPHENS
Tech. Officer: GSFC/A J NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 30252 COLORADO STATE UNIVERSITY 3045
 GLOBAL CHANGE FELLOWSHIP AWARD
 10/04/1994 - 08/31/1998 FY99: -\$14 Total: \$65,986
Prin. Invest.: J K DETHING
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30001 COLORADO STATE UNIVERSITY 3046
 STUDIES OF HOMOGENEOUS FREEZING NUCLEATION AT THE CON-
 DITIONS
 10/23/1996 - 12/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: S KREIDENWEIS
Tech. Officer: GSFC/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30024 COLORADO STATE UNIVERSITY 3047
 PARTITIONING OF ECOSYSTEM RESPIRATION AND VECTORS OF SIS USING
 D13C/D18O WITH IMPLICATIONS FOR NDVI-D
 10/17/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: E KELLY
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30174 COLORADO STATE UNIVERSITY 3048
 THE EFFECTS OF REMOTELY SENSED DATA ON MODELED LAND SUR-
 FACE-ATMOSPHERE INTERACTIONS: CONSEQUENCES
 10/09/1998 - 08/31/1999 FY99: \$22,000 Total: \$22,000
Prin. Invest.: S DENNING
Prin. Invest.: NONE
Tech. Officer: GSFC/M Y WEI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30182 COLORADO STATE UNIVERSITY 3049
 THE EFFECTS OF REMOTELY SENSED DATA ON MODELED LAND SUR-
 FACE-ATMOSPHERE INTERACTIONS: CONSEQUENCES
 08/13/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: A DENNING
Prin. Invest.: NONE
Tech. Officer: GSFC/M Y WEI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30218 COLORADO STATE UNIVERSITY 3050
 LIGHTNING & RADAR OBSERVATIONS FROM GROUND-BASED & SPACE-
 BORNE PLATFORMS: APPLICATIONS FOR TRMM
 08/24/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: S A RUTLEDGE
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50007 COLORADO STATE UNIVERSITY 3051
 RETRIEVAL OF CIRRUS CLOUD MICROPHYSICAL & RADIATIVE SPECTRAL
 MODIS & MAS MEASUREMENTS
 11/16/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: G STEPHENS
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NGT 5 50069 COLORADO STATE UNIVERSITY 3052
 COMPUTER SIMULATION OF CARDIOVASCULAR FUNCTION IN
 09/02/1997 - 06/30/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: R GOTSHALL
Tech. Officer: GSFC/L CHAMBER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50164 COLORADO STATE UNIVERSITY 3053
 PROPERTIES OF COMET MANTLE DUST
 06/03/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J NELSON
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 11 COLORADO STATE UNIVERSITY 3054
 VACUUM PROCESSING
 07/03/1996 - 07/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: M B STONE, J A MAGA, R W PHILLIPS
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 55 - AGRICULTURE

NAG 1 1642 UNIVERSITY OF COLORADO - BOULDER 3055
 EFFECT OF SMEARED ORTHOTROPIC STIFFNESS PROPERTIES ON THE
 FLAW SENSITIVITY OF STIFFENED PANELS
 09/01/1994 - 10/31/1998 FY99: \$0 Total: \$110,694
Prin. Invest.: M M MIKULAS
Prin. Invest.: NONE
Tech. Officer: LARC/J H STARNES, LARC/W B FICHTER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1700 UNIVERSITY OF COLORADO - BOULDER 3056
ANALYSIS AND DESIGN METHODOLOGY FOR SMALL SPACECRAFT
04/20/1995 - 04/30/1998 FY99: \$13,034 Total: \$634,042
Prin. Invest.: M MUKULAS, K C PARK, R SU
Tech. Officer: LARC/M D RHODES, LARC/W K BELVIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1708 UNIVERSITY OF COLORADO - BOULDER 3057
APPLICATION OF LES TO UNDERSTANDING AND PARAMETERIZING THE ARCTIC CLOUDY BOUNDARY LAYER
04/20/1995 - 04/30/1998 FY99: -\$1 Total: \$396,000
Prin. Invest.: J CURRY, W COTTON
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1864 UNIVERSITY OF COLORADO - BOULDER 3058
LIGHT-WEIGHT ADVANCED AEROACOUSTIC NACELLE DEVELOPMENT
09/09/1996 - 09/08/1999 FY99: \$20,000 Total: \$247,164
Prin. Invest.: S BIRINGEN
Tech. Officer: LARC/T L PARROTT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1927 UNIVERSITY OF COLORADO - BOULDER 3059
REFLECTED GPS SIGNALS: THEORY AND EXPERIMENTS MY 1/2
05/23/1997 - 05/31/2000 FY99: \$100,000 Total: \$315,000
Prin. Invest.: I B BORN, P AXELRAD
Tech. Officer: LARC/S J KATZBERG, LARC/M J FEREBEE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2021 UNIVERSITY OF COLORADO - BOULDER 3060
THEORETICAL INVESTIGATIONS OF CLOUDS AND AEROSOLS IN THE STRATOSPHERE AND UPPER TROPOSPHERE
03/12/1998 - 03/11/2001 FY99: \$97,000 Total: \$202,000
Prin. Invest.: O B TOON
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2047 UNIVERSITY OF COLORADO - BOULDER 3061
APPLICATION OF LES TO UNDERSTANDING AND PARAMETERIZING THE ARCTIC CLOUDY BOUNDARY LAYER
04/02/1998 - 04/30/2001 FY99: \$136,000 Total: \$298,000
Prin. Invest.: J A CURRY
Tech. Officer: LARC/D J MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2068 UNIVERSITY OF COLORADO - BOULDER 3062
EXPERIMENTAL AND ANALYTICAL CHARACTERIZATION OF THE NON-LINEAR BEHAVIOR OF MEMBRANE STRUCTURES
05/11/1998 - 04/10/2000 FY99: \$130,000 Total: \$245,000
Prin. Invest.: M M MUKULAS, JR.
Tech. Officer: LARC/M S LAKE
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 1 2165 UNIVERSITY OF COLORADO - BOULDER 3063
COMPARISONS OF THREE DIMENSIONAL NUMERICAL SIMULATIONS OF AMBIENT AND VOLCANIC STRATOSPHERIC
04/28/1999 - 05/31/2002 FY99: \$75,000 Total: \$75,000
Prin. Invest.: O B TOON
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2187 UNIVERSITY OF COLORADO - BOULDER 3064
IMPACT OF DESCENDING POLAR MESOSPHERIC NOX ON STRATOSPHERIC OZONE, NRA-98-OES-04
04/27/1999 - 01/31/2002 FY99: \$35,000 Total: \$35,000
Prin. Invest.: C E RANDALL
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2231 UNIVERSITY OF COLORADO - BOULDER 3065
CIRRUS CLOUD RETRIEVAL ANALYSIS IN SUPPORT OF FIRSC SUBMILLIMETER-WAVE SPECTROMETER
08/17/1999 - 05/31/2000 FY99: \$20,000 Total: \$20,000
Prin. Invest.: K F EVANS
Tech. Officer: LARC/I G NOLT
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1056 UNIVERSITY OF COLORADO - BOULDER 3066
FAR-INFRARED LINE PROFILES FROM PHOTODISSOCIATION REGIONS & WARM MOLECULAR CLOUDS
07/01/1996 - 12/31/1998 FY99: \$0 Total: \$60,000
Prin. Invest.: R T BOREIKO
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 1062 UNIVERSITY OF COLORADO - BOULDER 3067
A FAR-INFRARED HETERODYNE SPECTROMETER FOR SOFIA
07/03/1996 - 12/31/1998 FY99: \$8 Total: \$112,008
Prin. Invest.: A L BETZ
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 1116 UNIVERSITY OF COLORADO - BOULDER 3068
MODELING ATMOSPHERIC AEROSOLS PROPERTIES FOR EARTH'S RADIATION BUDGET & CLIMATE CHANGE STUDIES
02/14/1997 - 01/31/1999 FY99: \$0 Total: \$285,367
Prin. Invest.: I N SOKOLIK
Tech. Officer: ARC/E J JENSEN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1124 UNIVERSITY OF COLORADO - BOULDER 3069
MEASUREMENTS OF LONG LIVED TRACE GASES FROM COMMERCIAL AIRCRAFT PLATFORMS: INSTRUMENT DEVELOPMENT
04/08/1997 - 02/28/1999 FY99: \$71,000 Total: \$625,843
Prin. Invest.: L M AVALLONE
Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1127 UNIVERSITY OF COLORADO - BOULDER 3070
MULTIDIMENSIONAL MODELING OF SULFATE AEROSOLS
04/22/1997 - 03/31/1999 FY99: \$0 Total: \$158,147
Prin. Invest.: M J MILLS
Tech. Officer: ARC/E J JENSEN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1170 UNIVERSITY OF COLORADO - BOULDER 3071
CORRECTING SATELLITE IMAGE DERIVED SURFACE MODEL FOR ATMOSPHERIC EFFECTS
12/12/1997 - 12/31/1998 FY99: \$0 Total: \$100,000
Prin. Invest.: W J EMERY, D BALWIN
Tech. Officer: ARC/S LAU
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1221 UNIVERSITY OF COLORADO - BOULDER 3072
 VENUS DISCOVERY MISSION
 05/21/1998 - 08/31/1998 FY99: \$0 Total: \$30,000
Prin. Invest.: L W ESPOSITO
Tech. Officer: ARC/M A SMITH, ARC/C K SORECK
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 2 1258 UNIVERSITY OF COLORADO - BOULDER 3073
 CONTRAIL PERSISTENCE & AIRCRAFT EXHAUST IMPACTS ON CIRRHUS
 08/25/1998 - 09/30/1999 FY99: \$69,255 Total: \$119,123
Prin. Invest.: O B TOON
Tech. Officer: ARC/R P HIPSKIND, ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1306 UNIVERSITY OF COLORADO - BOULDER 3074
 MEASUREMENTS OF CIO & CO2 FOR ACCENT
 03/17/1999 - 02/29/2000 FY99: \$25,003 Total: \$25,003
Prin. Invest.: D W TOOHEY
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1307 UNIVERSITY OF COLORADO - BOULDER 3075
 IN SITU MEASUREMENTS OF HALOGEN OXIDES FROM THE DC -8 FOR SOLVE
 03/19/1999 - 03/31/2000 FY99: \$115,546 Total: \$115,546
Prin. Invest.: D W TOOHEY
Tech. Officer: ARC/E P CONDON, ARC/S R HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1315 UNIVERSITY OF COLORADO - BOULDER 3076
 THEORETICAL STUDIES OF STRATOSPHERIC CLOUDS & AERO SOLS IN SUPPORT OF SOLVE
 04/01/1999 - 03/31/2000 FY99: \$19,400 Total: \$19,400
Prin. Invest.: O B TOON
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1616 UNIVERSITY OF COLORADO - BOULDER 3077
 THREE DIMENSIONAL FLOW OF MICROGRAVITY DIFFUSION FLAME
 06/16/1994 - 01/31/1999 FY99: -\$1,070 Total: \$439,930
Prin. Invest.: J R HERTZBERG
Tech. Officer: GRC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1685 UNIVERSITY OF COLORADO - BOULDER 3078
 IGNITION AND COMBUSTION OF BULK METALS IN A MICROGRAVITY ENVIRONMENT
 11/22/1994 - 12/18/1998 FY99: \$0 Total: \$370,474
Prin. Invest.: M C BRANCH
Tech. Officer: GRC/R FRIEDMAN, GRC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1846 UNIVERSITY OF COLORADO - BOULDER 3079
 STRUCTURE HYDRODYNAMICS AND PHASE TRANSITIONS OF FREELY SUSPENDED LIQUID CRYSTALS
 05/02/1996 - 05/01/2000 FY99: \$130,000 Total: \$392,000
Prin. Invest.: N A CLARK
Tech. Officer: GRC/J S LING, GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1848 UNIVERSITY OF COLORADO - BOULDER 3080
 WAVES IN RADIAL GRAVITY USING MAGNETIC FLUID
 06/25/1996 - 06/24/2000 FY99: \$85,000 Total: \$305,000
Prin. Invest.: D R OHLSEN, J E HART, P D WEIDMAN
Tech. Officer: GRC/N R HALL
CASE Category: 11 - ASTRONOMY

NAG 3 1850 UNIVERSITY OF COLORADO - BOULDER 3081
 CELL AND PARTICLE INTERACTIONS AND AGGREGATION DURING ELECTROPHORETIC MOTION
 05/02/1996 - 08/31/2000 FY99: \$75,000 Total: \$275,000
Prin. Invest.: R H DAVIS
Tech. Officer: GRC/J S LING, GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 2116 UNIVERSITY OF COLORADO - BOULDER 3082
 THERMOCAPILLARY-INDUCED PHASE SEPARATION OF DISPERSED SYSTEMS WITH COALESCENCE
 01/28/1998 - 12/31/2001 FY99: \$75,000 Total: \$135,000
Prin. Invest.: R H DAVIS
Tech. Officer: GRC/B S SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 3 2136 UNIVERSITY OF COLORADO - BOULDER 3083
 DUSTY PLASMA DYNAMICS NEAR SURFACES IN SPACE. DUSTY PLASMA DYNAMICS NEAR SURFACES IN SPACE.
 03/05/1998 - 01/05/2002 FY99: \$80,000 Total: \$160,000
Prin. Invest.: J E COLWELL, S ROBERTSON, M HORANYI
Tech. Officer: GRC/H K NAHRA
CASE Category: 13 - PHYSICS

NAG 3 2220 UNIVERSITY OF COLORADO - BOULDER 3084
 COMBUSTION OF METALS IN REDUCED-GRAVITY AND EXTRATERRESTRIAL ENVIRONMENTS
 12/29/1998 - 11/11/2002 FY99: \$73,197 Total: \$73,197
Prin. Invest.: M C BRANCH
Tech. Officer: GRC/R FRIEDMAN
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2267 UNIVERSITY OF COLORADO - BOULDER 3085
 COLLISIONS INTO DUST EXPERIMENT II COLLISIONS INTO DUST EXPERIMENT II
 05/14/1999 - 04/30/2001 FY99: \$40,000 Total: \$40,000
Prin. Invest.: J E COLWELL
Tech. Officer: GRC/B J MOTIL
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 1853 UNIVERSITY OF COLORADO - BOULDER 3086
 GODDARD HIGH RESOLUTION SPECTROGRAPH (GHR) INCLUDING ACTIVITIES AS A GHR GUARANTEED TIME OBSERV.
 01/02/1992 - 11/14/1999 FY99: \$0 Total: \$2,320,952
Prin. Invest.: J C BRANDT
Tech. Officer: GSFC/A SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 2026 UNIVERSITY OF COLORADO - BOULDER 3087
 MODELING THE GAMMA-RAY SPECTRA OF ACTIVE GALACTIC NUCLEI
 07/08/1992 - 09/30/1997 FY99: -\$61 Total: \$136,864
Prin. Invest.: M C BEGELMAN
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2256 UNIVERSITY OF COLORADO - BOULDER 3088
 GLOBAL-SCALE TURBULENT SOLAR CONVECTION COUPLED TO ROTATION AND MAGNETIC FIELDS
 04/27/1993 - 09/30/1999 FY99: \$0 Total: \$1,405,000
 Prin. Invest.: J TOOMRE
 Tech. Officer: GSFC/T J BIRMINGHAM, GSFC/J D BOHLIN
 CASE Category: 13 - PHYSICS

NAG 5 2259 UNIVERSITY OF COLORADO - BOULDER 3089
 CONTEMPORANEOUS EUVE AND GHRS OBSERVATIONS OF THE OUTER ATMOSPHERIC STRUCTURE OF RS CVN
 04/30/1993 - 04/30/1999 FY99: \$0 Total: \$144,037
 Prin. Invest.: A BROWN
 Tech. Officer: GSFC/R OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 2530 UNIVERSITY OF COLORADO - BOULDER 3090
 CORONAL TEMPERATURE AND EMISSION MEASURE DISTRIBUTIONS FOR ACTIVE SUPERGIANT BETA DRA
 02/24/1994 - 03/14/1999 FY99: -\$3 Total: \$79,997
 Prin. Invest.: A BROWN
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 2577 UNIVERSITY OF COLORADO - BOULDER 3091
 EOSDIS VO IMS TIREKICKER ACTIVITIES AND SYSTEM PROTOTYPING
 04/21/1994 - 02/28/1999 FY99: \$0 Total: \$930,429
 Prin. Invest.: W J EMERY
 Tech. Officer: GSFC/K R MCDONALD
 CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2786 UNIVERSITY OF COLORADO - BOULDER 3092
 STUDIES OF TIDAL AND PLANETARY WAVE VARIABILITY IN THE MIDDLE ATMOSPHERE USING UARS AND CORRELATIVE
 11/14/1994 - 11/14/1997 FY99: -\$99 Total: \$155,901
 Prin. Invest.: D C FRITTS
 Tech. Officer: GSFC/C H JACKMAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2797 UNIVERSITY OF COLORADO - BOULDER 3093
 DYNAMICS OF LARGE SCALE STRUCTURE FROM REDSHIFT SP ACE
 11/18/1994 - 11/30/1999 FY99: \$0 Total: \$167,500
 Prin. Invest.: A J HAMILTON
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 2891 UNIVERSITY OF COLORADO - BOULDER 3094
 DEBUNKING THE MYTH OF TWO-TEMPERATURE CORONAE FOR RS CVN SYSTEMS USING CONTEMPORANEOUS HIGH
 02/17/1995 - 08/31/1998 FY99: -\$51 Total: \$86,149
 Prin. Invest.: J L LINSKY
 Tech. Officer: GSFC/R OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 2977 UNIVERSITY OF COLORADO - BOULDER 3095
 ABSOLUTE GRAVITY/GPS MEASUREMENTS IN GREENLAND
 06/16/1995 - 08/30/1999 FY99: \$0 Total: \$132,769
 Prin. Invest.: J WAHR, K LARSON
 Tech. Officer: GSFC/H J ZWALLY
 CASE Category: 11 - ASTRONOMY

NAG 5 3033 UNIVERSITY OF COLORADO - BOULDER 3096
 REALISTIC YET PRACTICAL NLTE RADIATIVE TRANSFER FOR MODELING STELLAR WINDS
 10/02/1995 - 10/14/1998 FY99: \$0 Total: \$62,300
 Prin. Invest.: P D BENNETT
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3054 UNIVERSITY OF COLORADO - BOULDER 3097
 AIRBORNE LASER ALTIMETRIC MONITORING OF THE RAPID EVOLUTION OF TOPOGRAPHY IN THE LONG VALLEY, CA CAL
 08/21/1995 - 08/31/1998 FY99: \$0 Total: \$95,695
 Prin. Invest.: J B RUNDLE
 Tech. Officer: GSFC/H V FREY
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3072 UNIVERSITY OF COLORADO - BOULDER 3098
 FRACTURE MORPHOLOGY AND NEOTECTONICS OF THE AFAR DEPRESSION
 09/25/1995 - 09/30/1997 FY99: -\$784 Total: \$25,396
 Prin. Invest.: R BILHAM
 Tech. Officer: GSFC/D J HARDING
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3133 UNIVERSITY OF COLORADO - BOULDER 3099
 THE IMPACT OF SN1987A WITH ITS CIRCUMSTELLAR RING
 10/24/1995 - 04/30/1999 FY99: \$0 Total: \$303,000
 Prin. Invest.: R A MCCRAY
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3143 UNIVERSITY OF COLORADO - BOULDER 3100
 TEMPORAL VARIATIONS OF THE GEOPOTENTIAL
 11/09/1995 - 11/14/1999 FY99: \$0 Total: \$225,000
 Prin. Invest.: J WAHR
 Tech. Officer: GSFC/P T TAYLOR
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3152 UNIVERSITY OF COLORADO - BOULDER 3101
 CHARACTERIZING AND QUANTIFYING THE X-RAY VARIABLE SKY: FROM ROSAT TO XTE AND BEYOND
 02/13/1996 - 06/30/1998 FY99: -\$265 Total: \$53,376
 Prin. Invest.: G S STRINGFELLOW
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3153 UNIVERSITY OF COLORADO - BOULDER 3102
 QUIESCENT CORONAL STRUCTURE AND VARIABILITY AT THE BOTTOM OF THE MAIN SEQUENCE: THE SINGLE STAR CN.
 02/06/1996 - 09/30/1998 FY99: \$0 Total: \$20,000
 Prin. Invest.: G S STRINGFELLOW
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 3179 UNIVERSITY OF COLORADO - BOULDER 3103
 A STUDY OF THE UPPER ATMOSPHERIC RESPONSE TO VARIATIONS IN SOLAR ULTRAVIOLET IRRADIANCE
 03/11/1996 - 09/30/1998 FY99: \$0 Total: \$205,054
 Prin. Invest.: J LONDON
 Tech. Officer: GSFC/C H JACKMAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3224 UNIVERSITY OF COLORADO - BOULDER 3104
 X-RAY EMISSION FROM PRE-MAIN SEQUENCE STARS-TEST- ING THE
 SOLAR ANALOGY
 05/07/1996 - 05/14/2000 FY99: \$91,300 Total: \$338,976
Prin. Invest.: S L SKINNER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3225 UNIVERSITY OF COLORADO - BOULDER 3105
 SPECTRAL AND TEMPORAL PROPERTIES OF BLACK HOLE CANDIDATES
 05/07/1996 - 04/30/2000 FY99: \$90,000 Total: \$328,000
Prin. Invest.: M A NOWAK
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3226 UNIVERSITY OF COLORADO - BOULDER 3106
 THE FUNDAMENTAL PHYSICAL PROCESSES PRODUCING AND CONTROL-
 LING STELLAR CORONAL/TRANSITION
 05/07/1996 - 04/30/2000 FY99: \$146,000 Total: \$553,000
Prin. Invest.: T A AYRES
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3310 UNIVERSITY OF COLORADO - BOULDER 3107
 X-RAY VARIABILITY CONSTRAINTS ON COMPTON CLOUD MOD ELS OF
 CYGNUS X-1
 07/24/1996 - 08/14/1998 FY99: -\$344 Total: \$13,498
Prin. Invest.: M A NOWAK
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3320 UNIVERSITY OF COLORADO - BOULDER 3108
 LASER ALTIMETRY OF FOLDS CAUSED BY LARGE EARTHQUAK ES
 07/30/1996 - 08/14/1998 FY99: -\$35 Total: \$19,965
Prin. Invest.: K MUELLER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3383 UNIVERSITY OF COLORADO - BOULDER 3109
 PROBING CORONAL FLARE ENERGISTICS: XTE OBSERVATIONS OF
 NEARBY FLARE STARS
 08/30/1996 - 02/28/1998 FY99: -\$23 Total: \$21,002
Prin. Invest.: J LINSKY
Tech. Officer: GSFC/J SWANK
CASE Category: 12 - CHEMISTRY

NAG 5 3394 UNIVERSITY OF COLORADO - BOULDER 3110
 CHARACTERIZING AND QUANTIFYING THE X-RAY VARIABLE SKY
 09/06/1996 - 09/14/2002 FY99: \$67,221 Total: \$201,409
Prin. Invest.: G S STRINGFELLOW
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3421 UNIVERSITY OF COLORADO - BOULDER 3111
 A SEARCH FOR CORONAL EMISSION IN THE LOWEST MASS S TARS AND
 ROTATIONAL-ACTIVITY RELATE
 09/15/1996 - 09/14/1998 FY99: \$0 Total: \$27,227
Prin. Invest.: G S STRINGFELLOW
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 3438 UNIVERSITY OF COLORADO - BOULDER 3112
 ENHANCED ANTARCTIC RESEARCH WITH LANDSAT: ICE SHEE T DYNAM-
 ICS, HISTORY AND CARTOGRAPHY
 10/07/1996 - 10/31/1999 FY99: \$50,933 Total: \$195,612
Prin. Invest.: T SCAMBOS
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3514 UNIVERSITY OF COLORADO - BOULDER 3113
 LEARNING ABOUTJET PHYSICS FROM GAMMA-RAY BLAZARS
 11/13/1996 - 11/14/1997 FY99: -\$68 Total: \$19,932
Prin. Invest.: M C BEGELMAN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3763 UNIVERSITY OF COLORADO - BOULDER 3114
 REMOTE SENSING OF PLANETARY SURFACES
 02/21/1997 - 01/31/2000 FY99: \$58,900 Total: \$158,823
Prin. Invest.: B M JAKOSKY
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3794 UNIVERSITY OF COLORADO - BOULDER 3115
 LIQUID CRYSTAL FOCAL-PLANE SHUTTERS
 03/25/1997 - 07/31/2000 FY99: \$5,917 Total: \$58,941
Prin. Invest.: P T STOCKE
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 3847 UNIVERSITY OF COLORADO - BOULDER 3116
 MAPPING RICE PRODUCTION IN CHINA WITH AVHRR IMAGER
 01/30/1997 - 11/15/1999 FY99: \$95,000 Total: \$330,171
Prin. Invest.: W EMERY
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3848 UNIVERSITY OF COLORADO - BOULDER 3117
 COLLABORATIVE RESEARCH: SCALING THEORIES OF THE 3- OF RIVER
 NETWORKS
 02/07/1997 - 09/30/1999 FY99: \$0 Total: \$152,000
Prin. Invest.: V K GUPTA
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3949 UNIVERSITY OF COLORADO - BOULDER 3118
 LOWER IONOSPHERE THERMOSPHERE EXPLORER
 02/21/1997 - 02/14/2000 FY99: \$0 Total: \$199,777
Prin. Invest.: D C SOLOMON
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 3967 UNIVERSITY OF COLORADO - BOULDER 3119
 INTEGRATED ANALYSIS OF COLUMELLA CELL STRUCTURE AN
 03/03/1997 - 02/28/2000 FY99: \$123,696 Total: \$321,629
Prin. Invest.: A STAEHELIN
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3997 UNIVERSITY OF COLORADO - BOULDER 3120
 WAVELET-BASED INTERPOLATION AND REPRESENTATION OF SPACE-
 CRAFT MISSION DATA
 03/13/1997 - 02/29/2000 FY99: \$58,000 Total: \$190,000
Prin. Invest.: M M LIGHTNER
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4061 UNIVERSITY OF COLORADO - BOULDER 3121
 WARPING AND PRECESSION OF ACCRETION DISKS IN XRAY
 03/18/1997 - 03/31/2000 FY99: \$94,000 Total: \$271,500
Prin. Invest.: M C BEGELMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4063 UNIVERSITY OF COLORADO - BOULDER 3122
 ASTROPHYSICS AT THE DISK-HALO INTERFACE
 03/18/1997 - 03/31/2000 FY99: \$102,300 Total: \$293,400
Prin. Invest.: M J SHULL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4095 UNIVERSITY OF COLORADO - BOULDER 3123
 EVENT RATE FOR LISA GRAVITATIONAL WAVE SIGNALS FRO BLACK HOLE
 COALESCENCES
 03/12/1997 - 03/31/2000 FY99: \$43,000 Total: \$105,000
Prin. Invest.: D L BENDER
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4099 UNIVERSITY OF COLORADO - BOULDER 3124
 NONLINEAR WAVES AND PARTICLE HEATING IN THE AURORA
 06/27/1997 - 05/31/1999 FY99: \$22,167 Total: \$113,000
Prin. Invest.: D GOLDMAN
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4100 UNIVERSITY OF COLORADO - BOULDER 3125
 LAST YEAR OF FUNDING FOR USRC PROGRAM AT UNIV. FO TRUCTION
 (CONTINUATION OF NAGW-1388) FOR 6 STUDEN
 03/11/1997 - 10/31/1998 FY99: \$0 Total: \$33,500
Prin. Invest.: R SU
Tech. Officer: GSFC/R AVANT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4119 UNIVERSITY OF COLORADO - BOULDER 3126
 GENERATION AND APPLICATION OF AVHRR-DERIVED ICE MO AND ANT-
 ARCTIC
 03/03/1997 - 02/28/1998 FY99: -\$2,743 Total: \$87,257
Prin. Invest.: D MASLANIK
Tech. Officer: GSFC/R H THOMAS
CASE Category: 11 - ASTRONOMY

NAG 5 4163 UNIVERSITY OF COLORADO - BOULDER 3127
 DYNAMICAL MODELS OF THE SOLAR SYSTEM FORMATION AND
 03/26/1997 - 02/28/2000 FY99: \$42,000 Total: \$122,000
Prin. Invest.: D R STEWART
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4171 UNIVERSITY OF COLORADO - BOULDER 3128
 COLLABORATIVE RESEARCH: CLIMATE SENSITIVITY OF THAW LAKE SYS-
 TEMS ON THE ALASKAN NORTH SLOPE
 03/17/1997 - 12/31/1999 FY99: \$19,881 Total: \$119,351
Prin. Invest.: D ZHANG
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4179 UNIVERSITY OF COLORADO - BOULDER 3129
 VARIABLE ICE-SHEET DISCHARGE AND COASTAL CHANGE IN WEST
 ANTARCTICA
 03/19/1997 - 12/31/1999 FY99: \$0 Total: \$33,419
Prin. Invest.: T SCAMBOS
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4183 UNIVERSITY OF COLORADO - BOULDER 3130
 STUDIES OF SOLAR FLARE AND INTERPLANETARY PARTICLE DINATION OF
 GROUND-BASED SOLAROBSERVATIONS IN SU
 03/17/1997 - 01/31/1998 FY99: -\$1 Total: \$55,999
Prin. Invest.: D KIPLINGER
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 - PHYSICS

NAG 5 4184 UNIVERSITY OF COLORADO - BOULDER 3131
 LABORATORY STUDIES OF THE VISIBLE SPECTROSCOPY & C IN THE GAS
 PHASE
 03/17/1997 - 12/31/1999 FY99: \$0 Total: \$80,000
Prin. Invest.: D P SNOW
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4218 UNIVERSITY OF COLORADO - BOULDER 3132
 SEA ICE AND OCEAN PROCESSES IN BAFFIN BAY: A STUD DATA AND
 NUMERICAL MODELING
 04/15/1997 - 12/31/1999 FY99: \$74,176 Total: \$228,436
Prin. Invest.: D STEFFEN
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4248 UNIVERSITY OF COLORADO - BOULDER 3133
 GREENLAND ICE SHEET CLIMATOLOGY AND SURFACE ENERGY GREEN-
 LAND CLIMATE NETWORK (GCNET)
 03/26/1997 - 03/31/2000 FY99: \$203,080 Total: \$611,111
Prin. Invest.: D STEFFEN
Tech. Officer: GSFC/R THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4263 UNIVERSITY OF COLORADO - BOULDER 3134
 SIMULATION AND THEORY OF THE FARLEY-BUNEMAN INSTAB ION-
 OSPHERE
 04/07/1997 - 04/14/2000 FY99: \$0 Total: \$69,807
Prin. Invest.: D OPPENHEIM
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4312 UNIVERSITY OF COLORADO - BOULDER 3135
 ORIGINS CONFERENCE-1997
 04/18/1997 - 12/31/1999 FY99: \$20,000 Total: \$63,000
Prin. Invest.: D M SHULL
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4314 UNIVERSITY OF COLORADO - BOULDER 3136
 LABORATORY STUDIES OF LOW TEMPERATURE RATE COEFFIC CHEM-
 ISTRY OF THE OUTER PLANETS
 04/16/1997 - 12/31/1999 FY99: \$110,500 Total: \$404,598
Prin. Invest.: D R LEONE
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4343 UNIVERSITY OF COLORADO - BOULDER 3137
 DUST PLASMA INTERACTION
 04/17/1997 - 05/14/2000 FY99: \$129,675 Total: \$236,500
Prin. Invest.: D HORANYI
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4422 UNIVERSITY OF COLORADO - BOULDER 3138
 CORDINATED XTE OBSERVATIONS OF CORONAL STRUCTURE A CVN
 BINARY SIGMA CRB
 05/06/1997 - 04/30/1999 FY99: \$0 Total: \$15,305
Prin. Invest.: A BROWN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4440 UNIVERSITY OF COLORADO - BOULDER 3139
 RADARSAT ANTARACTIC MAPPING PROJECT
 05/13/1997 - 06/30/1999 FY99: \$0 Total: \$18,242
Prin. Invest.: R G BARRY
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4446 UNIVERSITY OF COLORADO - BOULDER 3140
 THE DIURNAL CYCLE OF CONVECTION AND ITS INTERACTIO CIRCULATION
 04/28/1997 - 06/30/2000 FY99: \$0 Total: \$100,000
Prin. Invest.: D L SALBY
Tech. Officer: GSFC/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4447 UNIVERSITY OF COLORADO - BOULDER 3141
 UNDERSTANDING VARIABILITY IN THE AVIRIS-DERIVED PA VEGETATION
 CANOPIES
 04/25/1997 - 02/29/2000 FY99: \$0 Total: \$338,659
Prin. Invest.: A GOETZ
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4459 UNIVERSITY OF COLORADO - BOULDER 3142
 FORMATION OF THE MOON FROM AN IMPACT GENERATED DEB
 06/27/1997 - 09/30/1998 FY99: \$0 Total: \$53,000
Prin. Invest.: D CANUP
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4467 UNIVERSITY OF COLORADO - BOULDER 3143
 NATURAL OSCILLATIONS OF THE THERMOSPHERE-IONOSPHER
 05/27/1997 - 04/30/2001 FY99: \$67,833 Total: \$205,554
Prin. Invest.: P FORBES
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4477 UNIVERSITY OF COLORADO - BOULDER 3144
 SOFT X-RAY, OPTICAL-POLARMETRIC, SOONSPOT AND MICRO NTERPLA-
 NETARY PROTON ASSOCIATED FLARES AND ACTIVE
 06/02/1997 - 05/31/1999 FY99: \$35,546 Total: \$124,353
Prin. Invest.: D KIPLINGER
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 4506 UNIVERSITY OF COLORADO - BOULDER 3145
 PROPOSAL FOR COLLABORATION ON THE DEVELOPMENT AND AMSR
 SNOW WATER EQUIVALENT ALGORITHM
 05/07/1997 - 04/30/2000 FY99: \$25,000 Total: \$116,604
Prin. Invest.: R L ARMSTRONG
Tech. Officer: GSFC/A T CHANG
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4518 UNIVERSITY OF COLORADO - BOULDER 3146
 THE NATURE OF "PASSIVE" ELLIPTICAL GALAXIES; A SEA LUMINOSITY BL
 LACERTAE OBJECTS; VARIABILITY OF BL
 07/03/1997 - 06/30/1999 FY99: \$0 Total: \$14,600
Prin. Invest.: J T STOCKE
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4526 UNIVERSITY OF COLORADO - BOULDER 3147
 CHARGED PARTICULATES IN THE POLAR MESOSPHERE/INSTR
 05/07/1997 - 05/31/2000 FY99: \$121,750 Total: \$228,000
Prin. Invest.: D ROBERTSON
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4530 UNIVERSITY OF COLORADO - BOULDER 3148
 EVOLUTION OF BIOGENIC ELEMENTS ON MARS
 05/09/1997 - 03/31/1999 FY99: \$50,000 Total: \$100,000
Prin. Invest.: D M JAKOSKY
Tech. Officer: GSFC/M MEYER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4561 UNIVERSITY OF COLORADO - BOULDER 3149
 A SEARCH FOR SMALL COMETS WITH IMAGES FROM THE MSX SPACE-
 CRAFT
 10/31/1997 - 06/30/1998 FY99: -\$13 Total: \$31,687
Prin. Invest.: D BRANDT
Tech. Officer: GSFC/J BERGSTALH
CASE Category: 11 - ASTRONOMY

NAG 5 4580 UNIVERSITY OF COLORADO - BOULDER 3150
 A LOW COST MERCURY ORBITER MISSION
 05/13/1997 - 07/31/1999 FY99: \$0 Total: \$41,000
Prin. Invest.: P N BAKER
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 4615 UNIVERSITY OF COLORADO - BOULDER 3151
 SATELLITE ATMOSPHERE AND IO TORUS OBSERVATIONS
 05/20/1997 - 05/14/2000 FY99: \$81,667 Total: \$210,000
Prin. Invest.: D M SCHNEIDER
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4731 UNIVERSITY OF COLORADO - BOULDER 3152
 SPECTRAL AND DYNAMICAL SIGNATURES OF BLACK HOLE HI
 06/04/1997 - 02/28/1999 FY99: -\$60 Total: \$20,382
Prin. Invest.: M BEGELMAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4735 UNIVERSITY OF COLORADO - BOULDER 3153
 ACTIVITY ON THE EDGE OF CONVECTION: THE ATMOSPHERE \$17,478 AND
 LINKING THE IMPULSIVE AND GRADUAL PHA
 06/04/1997 - 06/14/2000 FY99: \$0 Total: \$32,904
Prin. Invest.: A BROWN
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 4737 UNIVERSITY OF COLORADO - BOULDER 3154
 LONG TERM MONITORING OF THE UNIQUE BLACK HOLE CAND
 06/04/1997 - 03/14/1999 FY99: \$0 Total: \$13,263
Prin. Invest.: M BEGELMAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4783 UNIVERSITY OF COLORADO - BOULDER 3155
 COORDINATED ASCA OBSERVATIONS OF CORONAL STRUCTURE CVN
 BINARY SIGMA CRB
 06/20/1997 - 06/30/2000 FY99: \$0 Total: \$17,800
Prin. Invest.: A BROWN
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 4784 UNIVERSITY OF COLORADO - BOULDER 3156
 X-RAY EMISSION FROM PROTOSTELLAR JETS
 06/18/1997 - 06/30/1998 FY99: -\$605 Total: \$4,495
Prin. Invest.: J MORSE
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4786 UNIVERSITY OF COLORADO - BOULDER 3157
 A SEARCH FOR CORONAL EMISSION AT THE BOTTOM OF THE
 06/23/1997 - 06/30/1998 FY99: -\$61 Total: \$4,539
Prin. Invest.: G S STRINGFELLOW
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4804 UNIVERSITY OF COLORADO - BOULDER 3158
 A UNIFIED ANALYSIS OF NON-RADIATIVE HEATING AND WI
 07/30/1997 - 07/31/2000 FY99: \$98,900 Total: \$280,500
Prin. Invest.: G HARPER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4896 UNIVERSITY OF COLORADO - BOULDER 3159
 ANALYZING THE LOSS, ENERGIZATION, AND TRANSPORT OF IN THE MAG-
 NETOSPHERE
 06/24/1997 - 07/14/2000 FY99: \$97,875 Total: \$199,500
Prin. Invest.: D LI
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4901 UNIVERSITY OF COLORADO - BOULDER 3160
 DOCUMENTING, UNDERSTANDING, AND PREDICTING THE AGG RADIATION
 FLUX FOR SHEBA
 06/19/1997 - 12/14/2000 FY99: \$100,000 Total: \$284,507
Prin. Invest.: D CURRY
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4906 UNIVERSITY OF COLORADO - BOULDER 3161
 GENERATION AT LEVEL 3 SSMR AND SSM/1 BRIGHTNESS TE PERIOD 1978
 - 1998
 06/19/1997 - 05/31/1999 FY99: \$0 Total: \$220,129
Prin. Invest.: D ARMSTONG
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4907 UNIVERSITY OF COLORADO - BOULDER 3162
 POLAR-WIDE GEOPHYSICAL PRODUCTS DERIVED FROM AVHRR
 06/20/1997 - 09/30/1999 FY99: \$0 Total: \$202,236
Prin. Invest.: D MASLANIK
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4918 UNIVERSITY OF COLORADO - BOULDER 3163
 PENETRATIVE DYNAMICS OF THE SOLAR INTERIOR
 07/07/1997 - 05/31/2000 FY99: \$132,658 Total: \$261,809
Prin. Invest.: D JULIEN
Tech. Officer: GSFC/W G WAGNER
CASE Category: 13 - PHYSICS

NAG 5 4982 UNIVERSITY OF COLORADO - BOULDER 3164
 INVESTIGATION INTO THE PROPERTIES AND EVOLUTION OF OUDS OF
 VENUS
 08/04/1997 - 07/14/1999 FY99: \$0 Total: \$142,500
Prin. Invest.: D GRINSPOON, NONE
Tech. Officer: GSFC/S HOWARD
CASE Category: 13 - PHYSICS

NAG 5 5020 UNIVERSITY OF COLORADO - BOULDER 3165
 HIGH RESOLUTION X-RAY SPECTROSCOPY FROM SOUNDING ROCKETS
 03/11/1994 - 10/31/1999 FY99: \$246,383 Total: \$1,554,373
Prin. Invest.: W C CASH
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5027 UNIVERSITY OF COLORADO - BOULDER 3166
 ENERGY TRANSFER IN THE THERMOSPHERE AND MESOSPHERE FUNDING
 FOR A ONE-YEAR EFFORT IN BASIC RESEARCH
 03/03/1995 - 02/28/2000 FY99: \$81,605 Total: \$275,753
Prin. Invest.: S SOLOMON
Tech. Officer: GSFC/L EARLY
CASE Category: 13 - PHYSICS

NAG 5 5028 UNIVERSITY OF COLORADO - BOULDER 3167
 TIDES, PLANETARY WAVES, AND EDDY FORCING OF THE MEAN MLT CIRCULATION FOR THE TIMED SCIENCE...
 03/03/1995 - 02/29/2000 FY99: \$139,395 Total: \$569,736
Prin. Invest.: J FORBES
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5029 UNIVERSITY OF COLORADO - BOULDER 3168
 A THEORETICAL & OBSERVATIONAL STUDY OF LARGE & SMALL SCALE DYNAMICS IN THE MESOSCALE & LOWER...
 03/03/1995 - 06/30/1998 FY99: -\$96 Total: \$149,904
Prin. Invest.: D FRITTS *Prin. Invest.:* NONE
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5090 UNIVERSITY OF COLORADO - BOULDER 3169
 EUV AND FUV OBSERVATIONS OF HALE-BOPP
 10/23/1996 - 05/31/1999 FY99: \$0 Total: \$35,183
Prin. Invest.: J C GREEN
Tech. Officer: GSFC/L W GURKIN
CASE Category: 13 - PHYSICS

NAG 5 5096 UNIVERSITY OF COLORADO - BOULDER 3170
 HIGH RESOLUTION SPECTROSCOPY IN THE FAR AND EXTREME ULTRAVIOLET
 12/02/1996 - 11/30/1999 FY99: \$450,000 Total: \$1,373,000
Prin. Invest.: J GREEN
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5141 UNIVERSITY OF COLORADO - BOULDER 3171
 AIRGLOW ROCKET
 04/25/1997 - 03/31/2000 FY99: \$5,000 Total: \$65,000
Prin. Invest.: T WOODS
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5168 UNIVERSITY OF COLORADO - BOULDER 3172
 ANALYSIS OF TIME DEPENDENT FAULT INTERACTIONS AND CALIFORNIA
 07/17/1997 - 07/14/2000 FY99: \$28,000 Total: \$181,922
Prin. Invest.: J B RUNDLE, NONE
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6006 UNIVERSITY OF COLORADO - BOULDER 3173
 3RD YR RENEWAL *MODELING, MONITORING AND FAULT DIA AIR CONTAMINANTS
 07/23/1997 - 12/31/1998 FY99: \$0 Total: \$119,231
Prin. Invest.: W RAMIREZ
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6048 UNIVERSITY OF COLORADO - BOULDER 3174
 LATE STAGES OF ACCRETION OF URANUS AND NEPTUNE
 07/25/1997 - 06/30/2000 FY99: \$44,100 Total: \$111,170
Prin. Invest.: D STEWART
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6051 UNIVERSITY OF COLORADO - BOULDER 3175
 ASSESSING FUTURE STABILITY OF US HIGH PLAINS LANDC PROCESS MODELING WITH LANDSAT IN SITU MODERN, AND
 07/28/1997 - 06/30/2000 FY99: \$0 Total: \$465,000
Prin. Invest.: D OVERPECK
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6114 UNIVERSITY OF COLORADO - BOULDER 3176
 GEOSTATISTICAL METHODS FOR DETERMINATION OF ROUGHN HANGES OF ANTARCTIC ICE STREAMS FROM SAR AND RADA
 07/28/1997 - 04/30/1999 FY99: \$0 Total: \$70,000
Prin. Invest.: U HERZFELD
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6124 UNIVERSITY OF COLORADO - BOULDER 3177
 THE SOLAR-STELLAR CONNECTION
 08/11/1997 - 07/31/1998 FY99: \$0 Total: \$40,500
Prin. Invest.: D R AYRES
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6133 UNIVERSITY OF COLORADO - BOULDER 3178
 DYNAMICAL AND CHEMICAL BEHAVIOR OF THE STRATOSPHERE
 08/11/1997 - 09/30/1999 FY99: \$0 Total: \$45,000
Prin. Invest.: D L SALBY
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6134 UNIVERSITY OF COLORADO - BOULDER 3179
 QUANTIFYING GRASSLAND-TO-WOODLAND TRANSITIONS AND CARBON AND NITROGEN DYNAMICS IN THE SOUTHWEST UNIT
 09/08/1997 - 01/31/2000 FY99: \$0 Total: \$481,250
Prin. Invest.: D A WESSMAN
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6138 UNIVERSITY OF COLORADO - BOULDER 3180
 LUNAR DUST: EROSION AND TRANSPORT
 09/04/1997 - 02/28/1999 FY99: \$0 Total: \$100,000
Prin. Invest.: D HORANDY
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6147 UNIVERSITY OF COLORADO - BOULDER 3181
 VARIATIONS IN GPS TIME SERIES: A STUDY OF HYDROLOGIC
 08/21/1997 - 08/31/2000 FY99: \$19,000 Total: \$169,526
Prin. Invest.: K LARSON
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6162 UNIVERSITY OF COLORADO - BOULDER 3182
 EARTHWORKS EDUCATING TEACHERS IN EARTH SYSTEM SCIENCE
 08/01/1997 - 07/31/2000 FY99: \$19,783 Total: \$57,898
Prin. Invest.: H SPETZLER
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6198 UNIVERSITY OF COLORADO - BOULDER 3183
 MODELING SUBSTORM DYNAMICS WITH A LOW-DIMENSIONAL E SPACE
 SYSTEM
 08/20/1997 - 05/31/2000 FY99: \$66,943 Total: \$152,068
Prin. Invest.: D DOXAS
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6270 UNIVERSITY OF COLORADO - BOULDER 3184
 EVOLUTION AND ACTIVITY IN THE SOLAR CORONA: A COM CHRO-
 MOSPHERIC STRUCTURES SEEN IN SOFT X-RAYS, WH
 08/21/1997 - 05/31/2000 FY99: \$47,552 Total: \$159,886
Prin. Invest.: D BAGENAL
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6302 UNIVERSITY OF COLORADO - BOULDER 3185
 DYNAMICS OF PLANETESIMAL & THE KUIPER COMET BELT
 10/10/1997 - 12/31/1999 FY99: \$80,800 Total: \$244,038
Prin. Invest.: D R STEWART
Tech. Officer: HQ/M M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6337 UNIVERSITY OF COLORADO - BOULDER 3186
 X-RAY REPROCESSING IN ACTIVE GALACTIC NUCLEI
 10/30/1997 - 10/31/1999 FY99: \$101,400 Total: \$206,800
Prin. Invest.: M BEGELMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6371 UNIVERSITY OF COLORADO - BOULDER 3187
 SATELLITE REMOTE SENSING OF ECOSYSTEM STRUCTURAL A INTEGRAT-
 ING SPECTRAL MIXTURE ANALYSIS AND BRDF I
 09/25/1997 - 10/31/1998 FY99: -\$939 Total: \$114,061
Prin. Invest.: D A WESSMAN
Tech. Officer: GSFC/D WICKLAND
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6431 UNIVERSITY OF COLORADO - BOULDER 3188
 THE EVOLUTION OF THE MARTIAN ATMOSPHERE
 10/14/1997 - 06/30/1998 FY99: -\$27 Total: \$34,895
Prin. Invest.: D JAKOSKY
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6462 UNIVERSITY OF COLORADO - BOULDER 3189
 VALIDATION STUDIES AND SENSITIVITY ANALYSES FOR RETRIEVALS OF
 SNOW ALBEDO & SNOWCOVERED AREA FROM
 10/14/1997 - 09/30/2000 FY99: \$6,230 Total: \$182,359
Prin. Invest.: A NOLIN
Tech. Officer: GSFC/D STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6474 UNIVERSITY OF COLORADO - BOULDER 3190
 IMAGING INTERPLANETARY HYDROGEN WITH ULYSSES
 11/13/1997 - 10/31/1999 FY99: \$40,000 Total: \$80,000
Prin. Invest.: D PRYOR
Tech. Officer: GSFC/L LING
CASE Category: 11 - ASTRONOMY

NAG 5 6504 UNIVERSITY OF COLORADO - BOULDER 3191
 EARTH OBSERVING SYSTEM (EOS) IDS
 10/24/1997 - 10/31/1999 FY99: \$230,771 Total: \$464,931
Prin. Invest.: O TOON
Tech. Officer: GSFC/D RIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6521 UNIVERSITY OF COLORADO - BOULDER 3192
 IMPROVING THE ACCURACY OF SATELLITE SEA SURFACE TEMPERATURE
 MEASUREMENTS BY EXPLICITLY ACCOUNTING F
 12/05/1997 - 09/30/2000 FY99: \$57,000 Total: \$413,369
Prin. Invest.: D EMERY
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6627 UNIVERSITY OF COLORADO - BOULDER 3193
 CYCLIC AND LONG TERM TRENDS IN THE MESOSPHERE
 11/18/1997 - 11/30/1999 FY99: \$112,642 Total: \$236,548
Prin. Invest.: D E THOMAS
Tech. Officer: GSFC/C JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6629 UNIVERSITY OF COLORADO - BOULDER 3194
 STUDIES OF TROPICAL/MID-LATITUDE EXCHANGE USING UARS OBSERVA-
 TIONS
 11/18/1997 - 11/30/1999 FY99: \$52,798 Total: \$105,915
Prin. Invest.: D AVALLONE
Tech. Officer: GSFC/A DOUGLASS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6636 UNIVERSITY OF COLORADO - BOULDER 3195
 PASSIVE MICROWAVE SNOW COVER ALGORITHM INTERCOMPARISON
 AND VALIDATION
 11/18/1997 - 10/31/2000 FY99: \$25,000 Total: \$224,895
Prin. Invest.: D L ARMSTRONG
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6651 UNIVERSITY OF COLORADO - BOULDER 3196
 CENTERS OF EXCELLENCE IN APPLICATIONS OF REMOTE SENSING TO
 REGIONAL AND GLOBAL INTEGRATED ENVIRONME
 12/11/1997 - 05/31/1999 FY99: \$0 Total: \$216,908
Prin. Invest.: A GOETZ
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6666 UNIVERSITY OF COLORADO - BOULDER 3197
 AVHRR-BASED POLAR PATHFINDER PRODUCTS - EVALUATION
 ENHANCEMENT AND TRANSITION TO MODIS
 11/25/1997 - 11/30/1999 FY99: \$0 Total: \$193,995
Prin. Invest.: D FOWLER
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6683 UNIVERSITY OF COLORADO - BOULDER 3198
 MODELING AND ANALYSIS OF UARS DATA IN THE STRATOSPHERE, MESO-
 SPHERE, AND LOWER THERMOSPHERE
 12/08/1997 - 11/30/1999 FY99: \$30,000 Total: \$60,000
Prin. Invest.: S BAILEY
Tech. Officer: GSFC/C JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6690 UNIVERSITY OF COLORADO - BOULDER 3199
 DIGGING FOR FOSSILS IN THE HERTZSPRUNG GAP
 12/03/1997 - 11/30/1998 FY99: \$0 Total: \$11,840
Prin. Invest.: T R AYRES
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 6708 UNIVERSITY OF COLORADO - BOULDER 3200
 EUV EMISSIONS FROM THE JUPITER SYSTEM
 12/16/1997 - 12/14/1998 FY99: \$0 Total: \$9,920
Prin. Invest.: N T SCHNEIDER
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 6725 UNIVERSITY OF COLORADO - BOULDER 3201
 INOSPHERE DELAY CORRECTION FOR SINGLE-FREQUENCY RADAR ALTIMETRY
 12/16/1997 - 12/14/1999 FY99: \$55,000 Total: \$105,000
Prin. Invest.: BORN
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6758 UNIVERSITY OF COLORADO - BOULDER 3202
 LABORATORY STUDIES OF THE VISIBLE SPECTROSCOPY AND CHEMISTRY OF POLYCYCLIC AROMATIC HYDROCARBON (PA)
 12/24/1997 - 12/31/1999 FY99: \$148,000 Total: \$195,000
Prin. Invest.: T SNOW
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 6791 UNIVERSITY OF COLORADO - BOULDER 3203
 EXTRACTION OF TIDES AND PLANETARY WAVES FROM SATELLITE OBSERVATIONS
 02/17/1998 - 02/29/2000 FY99: \$52,352 Total: \$96,143
Prin. Invest.: S PALO
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 6820 UNIVERSITY OF COLORADO - BOULDER 3204
 ARTIC REGIONAL SEA-ICE ANOMALIES: A DIAGNOSIS OF ICE-ATMOSPHERE OCEAN INTERACTIONS AND LINKAGES TO
 01/09/1998 - 12/31/1999 FY99: \$89,803 Total: \$165,023
Prin. Invest.: A LYNCH
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6850 UNIVERSITY OF COLORADO - BOULDER 3205
 UARS - SOLSTICE
 01/12/1998 - 12/14/1999 FY99: \$239,000 Total: \$472,000
Prin. Invest.: D ROTTMAN
Tech. Officer: GSFC/CJACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6875 UNIVERSITY OF COLORADO - BOULDER 3206
 ABSOLUTE GRAVITY/GPS MEASUREMENTS IN GREENLAND
 02/17/1998 - 12/31/1999 FY99: \$17,296 Total: \$39,836
Prin. Invest.: J WAHR
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6880 UNIVERSITY OF COLORADO - BOULDER 3207
 LASER INTERFEROMETRY TECHNIQUES FOR ACCURATE MEASUREMENT OF DISTANCECHANGES BETWEEN WIDELY SEPA
 02/17/1998 - 12/31/1999 FY99: \$80,000 Total: \$160,000
Prin. Invest.: R T STEBBINS
Tech. Officer: GSFC/P CRANE
CASE Category: 11 - ASTRONOMY

NAG 5 6900 UNIVERSITY OF COLORADO - BOULDER 3208
 INVESTIGATIONS OF CLOUDS AND AEROSOLS ON MARS AND VENUS
 01/21/1998 - 09/30/1999 FY99: \$75,209 Total: \$147,209
Prin. Invest.: O TOON
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 6901 UNIVERSITY OF COLORADO - BOULDER 3209
 CHROMOSPHERIC STRUCTURE AND WIND ACCELERATION IN ZETA AUR STARS
 02/04/1998 - 02/14/2000 FY99: \$0 Total: \$40,000
Prin. Invest.: P BENNETT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6909 UNIVERSITY OF COLORADO - BOULDER 3210
 EUVE OBSERVATION OF THE JUPITER SYSTEM
 02/25/1998 - 09/30/1999 FY99: \$0 Total: \$24,402
Prin. Invest.: N SCHNEIDER
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 6936 UNIVERSITY OF COLORADO - BOULDER 3211
 THE EVOLUTION AND X-RAY MORPHOLOGY OF DISTANT CLUSTERS OF GALAXIES
 02/04/1998 - 02/14/2000 FY99: \$40,000 Total: \$80,000
Prin. Invest.: J T STOCKE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6984 UNIVERSITY OF COLORADO - BOULDER 3212
 MEDIUM ENERGY PARTICLE PRECIPITATION EFFECTS ON THE MESOSPHERE AND LOWER THERMOSPHERE
 02/27/1998 - 03/31/2000 FY99: \$79,673 Total: \$151,784
Prin. Invest.: M CODRESCU
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7020 UNIVERSITY OF COLORADO - BOULDER 3213
 TIME-RESOLVED SPECTROSCOPY OF ACTIVE BINARY STARS
 02/17/1998 - 02/14/2000 FY99: \$0 Total: \$18,520
Prin. Invest.: A BROWN
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 7021 UNIVERSITY OF COLORADO - BOULDER 3214
 SATELLITE REMOTE SENSING OF TROPICAL ICE CLOUDS AND PRECIPITATION FOR GCM VERIFICATION
 03/19/1998 - 12/31/1999 FY99: \$0 Total: \$97,981
Prin. Invest.: D EVANS
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7024 UNIVERSITY OF COLORADO - BOULDER 3215
 V1408 AQL: BLACK HOLE CANDIDATE OR NEUTRON STAR X- RAY
 BINARY?XTE PROPOSAL
 02/13/1998 - 02/14/1999 FY99: \$0 Total: \$8,806
Prin. Invest.: M C BEGELMAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7062 UNIVERSITY OF COLORADO - BOULDER 3216
 SOLAR AND INTERPLANETARY OPTICAL SUPPORT FOR SOHO
 02/24/1998 - 08/31/1999 FY99: \$0 Total: \$18,635
Prin. Invest.: A KIPLINGER
Tech. Officer: GSFC/A POLAND
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7071 UNIVERSITY OF COLORADO - BOULDER 3217
 SMALL-SCALE POLYGONS AND THE HISTORY OF GROUND ICE ON MARS
 02/20/1998 - 02/14/2000 FY99: \$58,900 Total: \$117,700
Prin. Invest.: M T MELLON
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7088 UNIVERSITY OF COLORADO - BOULDER 3218
 MHD SIMULATIONS OF THE COUPLING BETWEEN IO AND JUPITER
 02/23/1998 - 03/31/2000 FY99: \$69,000 Total: \$113,333
Prin. Invest.: F BAGENAL
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 7112 UNIVERSITY OF COLORADO - BOULDER 3219
 SAMPEX DATA ANALYSIS
 03/25/1998 - 02/29/2000 FY99: \$0 Total: \$129,000
Prin. Invest.: D N BAKER
Tech. Officer: GSFC/J A SLAVIN
CASE Category: 11 - ASTRONOMY

NAG 5 7128 UNIVERSITY OF COLORADO - BOULDER 3220
 PRECISION MEASUREMENT OF LARGE SCALE STRUCTURE-ATP
 03/24/1998 - 02/14/2000 FY99: \$83,451 Total: \$123,451
Prin. Invest.: A J HAMILTON
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7167 UNIVERSITY OF COLORADO - BOULDER 3221
 FORMATION OF THE MOON FROM AN IMPACT-GENERATED DEBRIS DISK
 03/16/1998 - 03/31/2000 FY99: \$84,167 Total: \$125,000
Prin. Invest.: R CANUP
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7190 UNIVERSITY OF COLORADO - BOULDER 3222
 LITHOSPHERIC DYNAMICS OF VENUS AND MARS
 04/09/1998 - 05/14/2000 FY99: \$60,742 Total: \$78,800
Prin. Invest.: R E GRIMM
Tech. Officer: GSFC/P ROGERS
CASE Category: 11 - ASTRONOMY

NAG 5 7223 UNIVERSITY OF COLORADO - BOULDER 3223
 A SEARCH FOR CORONAL EMISSION AT THE BOTTOM OF THE MAIN-SEQUENCE
 04/09/1998 - 04/14/2002 FY99: \$0 Total: \$9,920
Prin. Invest.: G S STRINGFELLOW
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 7234 UNIVERSITY OF COLORADO - BOULDER 3224
 THE SOHO STELLAR CONNECTION
 04/08/1998 - 04/30/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: T R AYRES
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7262 UNIVERSITY OF COLORADO - BOULDER 3225
 THE INTERGALACTIC MEDIUM AND QSO ABSORPTION SYSTEM S₊ (LTA - NEW)
 04/28/1998 - 04/30/2000 FY99: \$104,400 Total: \$204,400
Prin. Invest.: J SHULL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7329 UNIVERSITY OF COLORADO - BOULDER 3226
 XTE PROPOSAL - RXTE OBSERVATIONS OF M87: INVESTIGATING THE NON-THERMAL CONTINUUM
 04/24/1998 - 04/14/2000 FY99: \$0 Total: \$8,000
Prin. Invest.: C REYNOLDS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7339 UNIVERSITY OF COLORADO - BOULDER 3227
 XTE PROPOSAL - CYGNUS X-1: DIPS AND LOW FREQUENCY NOISE
 04/24/1998 - 01/31/2000 FY99: \$0 Total: \$8,667
Prin. Invest.: M BEGELMAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7340 UNIVERSITY OF COLORADO - BOULDER 3228
 XTE PROPOSAL - LONG-TERM MONITORING OF THE BLACK HOLE CANDIDATES LMCX-1 AND LMC X-3
 04/24/1998 - 04/30/1999 FY99: \$0 Total: \$8,333
Prin. Invest.: M BEGELMAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7365 UNIVERSITY OF COLORADO - BOULDER 3229
 RELATIONSHIPS BETWEEN THE BULK-SKIN SEA SURFACE TEMPERATURE DIFFERENCE, WIND AND NET AIR-SEA HEAT F
 04/29/1998 - 12/31/1999 FY99: \$72,000 Total: \$178,796
Prin. Invest.: W EMERY
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 33 - OCEANOGRAPHY

NAG 5 7398 UNIVERSITY OF COLORADO - BOULDER 3230
 XTE PROPOSAL - COORDINATED XTE OBSERVATIONS OF FLARES AND CORONAL STRUCTURE ON THE RS CVN BINARY
 05/13/1998 - 05/31/2000 FY99: \$0 Total: \$6,065
Prin. Invest.: A BROWN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7402 UNIVERSITY OF COLORADO - BOULDER 3231
 INTEGRATED USE OF EXPERIMENTAL MODELING & REMOTE SENSING
 TECHNIQUES TO INVESTIGATE CARBON ISOTOPE
 05/15/1998 - 11/30/1999 FY99: \$0 Total: \$201,537
Prin. Invest.: A TOWNSEND
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7449 UNIVERSITY OF COLORADO - BOULDER 3232
 RELATIONSHIPS BETWEEN INTERSTELLAR AND INTERPLANETARY
 GRAINS
 07/02/1998 - 06/30/2000 FY99: \$30,000 Total: \$56,000
Prin. Invest.: T P SNOW
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7465 UNIVERSITY OF COLORADO - BOULDER 3233
 NARROW BAND IMAGING WITH HOLOGRAPHIC TELESCOPES
 11/25/1998 - 12/31/1999 FY99: \$49,000 Total: \$49,000
Prin. Invest.: D WILKINSON
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 7466 UNIVERSITY OF COLORADO - BOULDER 3234
 AEROSOL-CLOUD-CLIMATE INTERACTIONS
 05/28/1998 - 05/31/2000 FY99: \$62,788 Total: \$122,473
Prin. Invest.: K STEFFEN
Tech. Officer: GSFC/J ZWALLY
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7496 UNIVERSITY OF COLORADO - BOULDER 3235
 EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND AND
 REGIONS
 06/29/1998 - 06/30/2001 FY99: \$0 Total: \$113,327
Prin. Invest.: A FREI
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 11 - ASTRONOMY

NAG 5 7541 UNIVERSITY OF COLORADO - BOULDER 3236
 THE USE OF CASES OBSERVATIONS TO ASSESS AND PARAMETERIZE THE
 IMPACT OF LAND-SURFACE HETEROGENEITY ON
 06/18/1998 - 08/31/2001 FY99: \$0 Total: \$100,351
Prin. Invest.: D YATES
Tech. Officer: GSFC/E ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7543 UNIVERSITY OF COLORADO - BOULDER 3237
 INVESTIGATING DOWNSCALING METHODS AND EVALUATING CLIMATE
 MODELS FOR USE IN ESTIMATING REGIONAL WATER
 06/23/1998 - 07/31/2001 FY99: \$0 Total: \$270,000
Prin. Invest.: A FREI
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7611 UNIVERSITY OF COLORADO - BOULDER 3238
 FOLLOW-ON STUDY FOR ICESAT SPACECRAFT POINTING PERIOD OF PER-
 FORMANCE: 8/1/9
 07/22/1998 - 07/31/2000 FY99: \$25,000 Total: \$75,000
Prin. Invest.: G BORN
Tech. Officer: GSFC/G SMITH
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 7638 UNIVERSITY OF COLORADO - BOULDER 3239
 INTERFEROMETRIC TECHNIQUES FOR GRAVITATIONAL WAVE DETECTION
 IN SPACE
 12/08/1998 - 12/31/1999 FY99: \$44,000 Total: \$44,000
Prin. Invest.: D T STEBBINS
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 7652 UNIVERSITY OF COLORADO - BOULDER 3240
 AN INVESTIGATION OF THE EFFECT OF PARTICLE IONIZATION ON THE
 EARTH'S MIDDLE ATMOSPHERE AND ITS R
 08/25/1998 - 09/30/2001 FY99: \$64,560 Total: \$120,000
Prin. Invest.: D RUSCH
Tech. Officer: HQ/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 7679 UNIVERSITY OF COLORADO - BOULDER 3241
 CLOUD STRUCTURE RECONSTRUCTION AND SHORTWAVE RADIATIVE
 TRANSFER MODELING FOR ARMYEAR 1 OF A 3 YEAR
 09/17/1998 - 08/31/2000 FY99: \$50,000 Total: \$93,000
Prin. Invest.: K EVANS
Tech. Officer: GSFC/W WISCOMBE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7703 UNIVERSITY OF COLORADO - BOULDER 3242
 FUNDING FOR TEMPORAL VARIATIONS OF THE GEOPOTENTIAL
 (SENH98-0102)
 09/23/1998 - 03/31/2000 FY99: \$95,000 Total: \$143,000
Prin. Invest.: J M WAHR
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7723 UNIVERSITY OF COLORADO - BOULDER 3243
 THE DISK WIND MODEL OF THE BROAD LINE REGIONS IN ACTIVE GALAC-
 TIC NUCLEI AND CATAclysmic VARI
 09/23/1998 - 09/30/2000 FY99: \$0 Total: \$83,417
Prin. Invest.: M C BEGELMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7725 UNIVERSITY OF COLORADO - BOULDER 3244
 MODEL PREDICTIONS OF INTERACTIONS BETWEEN SOLAR AND ANTHRO-
 POGENIC PERTURBATIONS IN THE EARTH
 09/23/1998 - 09/30/2001 FY99: \$21,000 Total: \$41,500
Prin. Invest.: D RUSCH
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 7759 UNIVERSITY OF COLORADO - BOULDER 3245
 GEOLOGICAL FORCING OF CLIMATE CHANGE ON VENUS
 12/21/1998 - 05/31/1999 FY99: \$0 Total: \$0
Prin. Invest.: D H GRINSPOON
Tech. Officer: GSFC/J GRANT
CASE Category: 11 - ASTRONOMY

NAG 5 7760 UNIVERSITY OF COLORADO - BOULDER 3246
 CHARACTERIZING THE SINGLE COAST ICE STREAM SYSTEM USING SAT-
 ELLITE IMAGES, IMPROVED TOPOGRAPHY, AND IN
 12/21/1998 - 12/31/1999 FY99: \$38,434 Total: \$38,434
Prin. Invest.: T A SCAMBOS
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7784 UNIVERSITY OF COLORADO - BOULDER 3247
 SOLAR MESOSPHERE EXPLORER MEASUREMENTS OF EL CHICH ON
 AEROSOLS
 11/09/1998 - 10/31/1999 FY99: \$57,850 Total: \$57,850
 Prin. Invest.: C E RANDALL
 Tech. Officer: GSFC/M MISHCHENKO
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7838 UNIVERSITY OF COLORADO - BOULDER 3248
 STUDY OF ANOMALOUS VARIATION OF THE TOTAL SOLAR IR RADIANCE AT
 THE BEGINNING OF SOLAR CYCLE 23
 12/16/1998 - 12/14/1999 FY99: \$61,769 Total: \$61,769
 Prin. Invest.: G DE TOMA
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7851 UNIVERSITY OF COLORADO - BOULDER 3249
 MULTIWAVELENGTH TESTING OF BROADBAND EUV GRATINGS
 11/30/1998 - 12/31/2000 FY99: \$52,000 Total: \$52,000
 Prin. Invest.: D WILKINSON
 Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 7881 UNIVERSITY OF COLORADO - BOULDER 3250
 INFRARED, IMAGING, AND MODELING STUDIES OF CONDENSATES AND
 DUST IN THE MARTIAN POLAR REGIONS
 11/30/1998 - 12/31/1999 FY99: \$54,145 Total: \$54,145
 Prin. Invest.: D W LEE Prin. Invest.: NONE
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 7897 UNIVERSITY OF COLORADO - BOULDER 3251
 ASCA OBSERVATIONS OF THE SEYFERT 1 GALAXY NGC5548 - ADP 98
 12/10/1998 - 12/14/1999 FY99: \$8,000 Total: \$8,000
 Prin. Invest.: C S REYNOLDS
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7996 UNIVERSITY OF COLORADO - BOULDER 3252
 GLOBAL AND LOCAL HELIOSEISMIC STUDIES OF SOLAR CONVECTION-
 ZONE DYNAMICS USING SOI-MDI
 01/05/1999 - 12/31/1999 FY99: \$200,000 Total: \$200,000
 Prin. Invest.: J TOOMRE
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8047 UNIVERSITY OF COLORADO - BOULDER 3253
 A COMPARATIVE ANALYSIS OF THE GALILEO-ERA IO TORUS &
 ATMOSPHERE
 01/15/1999 - 01/14/2000 FY99: \$50,000 Total: \$50,000
 Prin. Invest.: N M SCHNEIDER
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 8096 UNIVERSITY OF COLORADO - BOULDER 3254
 ULTRAVIOLET STUDIES OF JUPITER'S HYDROCARBONS AND AEROSOLS
 FROM GALILEO
 01/29/1999 - 01/31/2000 FY99: \$55,000 Total: \$55,000
 Prin. Invest.: D R PRYOR
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 8108 UNIVERSITY OF COLORADO - BOULDER 3255
 THE YOUNGEST STARS - LTSA 98
 02/11/1999 - 02/14/2000 FY99: \$102,185 Total: \$102,185
 Prin. Invest.: J BALLY
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8127 UNIVERSITY OF COLORADO - BOULDER 3256
 "INFRARED OPTICAL CONSTANTS OF PARTICLES IN THE LOWER STRATO-
 SPHERE AND UPPER TROPOSPHERE"
 02/04/1999 - 11/30/1999 FY99: \$110,501 Total: \$110,501
 Prin. Invest.: M A TOLBERT
 Tech. Officer: GSFC/M D KING
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8133 UNIVERSITY OF COLORADO - BOULDER 3257
 GLOBAL MODELS OF SOLAR CONVECTION, ROTATION AND MAGNETIC
 ACTIVITY
 03/02/1999 - 04/30/2000 FY99: \$285,000 Total: \$285,000
 Prin. Invest.: J TOOMRE
 Tech. Officer: GSFC/J M GREBOWSKY
 CASE Category: 11 - ASTRONOMY

NAG 5 8178 UNIVERSITY OF COLORADO - BOULDER 3258
 ULTRAVIOLET PHOTOMETRIC PARAMETERS OF THE ICY GALILEAN SAT-
 ELLITES AND THE MOON
 02/11/1999 - 02/14/2000 FY99: \$30,486 Total: \$30,486
 Prin. Invest.: A HENDRIX
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 8236 UNIVERSITY OF COLORADO - BOULDER 3259
 SN1987A: THE BIRTH OF A SUPERNOVA REMNANT (ATP 98)
 02/25/1999 - 02/28/2000 FY99: \$98,558 Total: \$98,558
 Prin. Invest.: R A MCCRAY
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8247 UNIVERSITY OF COLORADO - BOULDER 3260
 GGS CEPPAD SUPPLEMENT
 02/24/1999 - 04/30/2000 FY99: \$96,000 Total: \$96,000
 Prin. Invest.: D BAKER
 Tech. Officer: GSFC/R HOFFMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8256 UNIVERSITY OF COLORADO - BOULDER 3261
 JOVIAN AURORAL CHEMISTRY
 02/11/1999 - 02/14/2000 FY99: \$12,000 Total: \$12,000
 Prin. Invest.: W PRYOR
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 8259 UNIVERSITY OF COLORADO - BOULDER 3262
 MULTISPECTRAL MAPPING OF THE MARTIAN POLAR ICE CAP S
 02/16/1999 - 02/29/2000 FY99: \$81,000 Total: \$81,000
 Prin. Invest.: A W NOLIN
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8266 UNIVERSITY OF COLORADO - BOULDER 3263
 WAVE STRUCTURES AND VERTICAL COUPLING IN THE MARTIAN ATMOSPHERE
 02/24/1999 - 05/31/2000 FY99: \$40,900 Total: \$40,900
 Prin. Invest.: J M FORBES
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8311 UNIVERSITY OF COLORADO - BOULDER 3264
 THE DIURNAL CYCLE OF CONVECTION AND ITS INTERACTION WITH THE LARGE SCALE CIRCULATION
 03/12/1999 - 02/28/2000 FY99: \$42,792 Total: \$42,792
 Prin. Invest.: M L SALBY
 Tech. Officer: GSFC/J R CURRAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8320 UNIVERSITY OF COLORADO - BOULDER 3265
 INTEGRATING MICROWAVE AND HYPERSPECTRAL REMOTE SENSING FOR ESTIMATING VEGETATION STRUCTURE AND BIOMASS
 04/06/1999 - 03/31/2000 FY99: \$43,715 Total: \$43,715
 Prin. Invest.: G P ASNER
 Tech. Officer: GSFC/D C WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8337 UNIVERSITY OF COLORADO - BOULDER 3266
 THE EVOLUTION OF H₂O AND CO₂ ON MARS
 03/25/1999 - 05/31/1999 FY99: \$0 Total: \$0
 Prin. Invest.: D H GRINSPOON
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 8338 UNIVERSITY OF COLORADO - BOULDER 3267
 PHOTOMETRIC ANALYSIS OF THE JOVIAN RING SYSTEM AND MODELING OF RING ORIGIN AND EVOLUTION
 03/23/1999 - 04/30/2000 FY99: \$59,776 Total: \$59,776
 Prin. Invest.: L W ESPOSITO
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 8362 UNIVERSITY OF COLORADO - BOULDER 3268
 THEORETICAL STUDIES OF MICROPHYSICAL MARINE BOUNDARY-LAYER CLOUDS
 03/15/1999 - 03/14/2000 FY99: \$105,532 Total: \$105,532
 Prin. Invest.: O B TOON
 Tech. Officer: GSFC/M MISCHENKO
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8399 UNIVERSITY OF COLORADO - BOULDER 3269
 POLAR PATHFINDER HDF-EOS PILOT PROJECT
 05/14/1999 - 05/14/2000 FY99: \$64,000 Total: \$64,000
 Prin. Invest.: R L WEAVER
 Tech. Officer: GSFC/K MOE
 CASE Category: 22 - COMPUTER SCIENCE

NAG 5 8442 UNIVERSITY OF COLORADO - BOULDER 3270
 NONLINEAR MODELING OF HIGH-LATITUDE ELECTRODYNAMICS AND MID-LATITUDE CURRENTS AND PREDICTION FROM REMOTE SENSING
 04/08/1999 - 04/30/2000 FY99: \$16,206 Total: \$16,206
 Prin. Invest.: D N BAKER
 Tech. Officer: GSFC/A J KLIMAS
 CASE Category: 13 - PHYSICS

NAG 5 8461 UNIVERSITY OF COLORADO - BOULDER 3271
 FUNDS TO UNSOLICITED PROPOSAL "SAMPEX DATA ANALYSIS"
 04/15/1999 - 04/14/2000 FY99: \$26,000 Total: \$26,000
 Prin. Invest.: D BAKER
 Tech. Officer: GSFC/J SLAVIN
 CASE Category: 13 - PHYSICS

NAG 5 8534 UNIVERSITY OF COLORADO - BOULDER 3272
 LAND SURFACE MODELING & DATA ASSIMILATION WITH IN SITU & REMOTE SENSING DATA FROM CASES-97
 07/08/1999 - 07/14/2000 FY99: \$53,000 Total: \$53,000
 Prin. Invest.: R QUALLS
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8538 UNIVERSITY OF COLORADO - BOULDER 3273
 SUPERCONDUCTING MIXERS FOR FAR INFRARED SPECTROSCOPY
 08/11/1999 - 08/14/2000 FY99: \$100,000 Total: \$100,000
 Prin. Invest.: A L BETZ
 Tech. Officer: GSFC/C MUCKLOW
 CASE Category: 11 - ASTRONOMY

NAG 5 8615 UNIVERSITY OF COLORADO - BOULDER 3274
 APPLICATION OF SATELLITE SAR IMAGERY IN MAPPING THE ACTIVE LAYER OF ARCTIC PERMAFROST
 06/14/1999 - 06/30/2000 FY99: \$31,597 Total: \$31,597
 Prin. Invest.: T ZHANG
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8643 UNIVERSITY OF COLORADO - BOULDER 3275
 DISTRIBUTION & AUTOMATION TECHNOLOGY APPLICATION, "DATA"
 07/08/1999 - 06/30/2000 FY99: \$286,581 Total: \$286,581
 Prin. Invest.: E R HANSEN
 Tech. Officer: GSFC/G MUCKLOW
 CASE Category: 22 - COMPUTER SCIENCE

NAG 5 8697 UNIVERSITY OF COLORADO - BOULDER 3276
 ALGORITHMS FOR AUTONOMOUS GPS ORBIT DETERMINATION & FORMATION FLYING
 08/18/1999 - 08/14/2000 FY99: \$57,500 Total: \$57,500
 Prin. Invest.: P AXELRAD
 Tech. Officer: GSFC/J GARRISON
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 8709 UNIVERSITY OF COLORADO - BOULDER 3277
 LAND USE IMPACTS ON SUBTROPICAL BIOGEOCHEMICAL CYCLES: AN INTEGRATED FIELD-PROCESSING MODELING-REMO
 07/29/1999 - 07/31/2000 FY99: \$158,688 Total: \$158,688
 Prin. Invest.: G ASNER
 Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8755 UNIVERSITY OF COLORADO - BOULDER 3278
 INTERCALIBRATION OF MESOSPHERE/LOWER THERMOSPHERE WINDS FROM SPACE-BASED & GROUND-BASED MEASUREMENTS
 08/12/1999 - 08/14/2000 FY99: \$16,000 Total: \$16,000
 Prin. Invest.: J M FORBES
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8840 UNIVERSITY OF COLORADO - BOULDER 3279
 INTERNATIONAL RESEARCH WORKSHOP ON INTEGRATING GIS & ENVIRONMENTAL MODELING: PROBLEMS, PROSPECTS &
 09/22/1999 - 09/30/2000 FY99: \$10,000 Total: \$10,000
 Prin. Invest.: B O PARKS
 Tech. Officer: GSFC/B W MEESON
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1093 UNIVERSITY OF COLORADO - BOULDER 3280
 ANALYSIS OF USAF DEFENSE METEOROLOGICAL SATELLITE PROGRAM DATA FOR GLOBAL LIGHTING
 11/16/1994 - 05/31/1999 FY99: \$0 Total: \$213,284
 Prin. Invest.: G S SCHARFEN
 Tech. Officer: MSFC/S J GOODMAN, MSFC/H J CHRISTIAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1135 UNIVERSITY OF COLORADO - BOULDER 3281
 CERAMIC MATRIX COMPOSITES STUDY
 03/27/1995 - 09/29/1998 FY99: -\$126,857 Total: \$100,903
 Prin. Invest.: W ROGERS
 Tech. Officer: MSFC/S STOYANOF
 CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1165 UNIVERSITY OF COLORADO - BOULDER 3282
 PREPARATION & ANALYSIS OF RNA CRYSTALS
 09/22/1995 - 06/30/1999 FY99: \$190,000 Total: \$730,000
 Prin. Invest.: P TODD, C KUNDROT, S SCHULTZ
 Tech. Officer: GSFC/B GUYNES, GSFC/D C CARTER
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1306 UNIVERSITY OF COLORADO - BOULDER 3283
 COHERENT LIDAR DESIGN PERFORMANCE FOR SPACE MISSIONS
 09/18/1996 - 04/12/1999 FY99: \$0 Total: \$195,863
 Prin. Invest.: R G FREHLICH
 Tech. Officer: MSFC/S C JOHNSON, MSFC/B F JONES
 CASE Category: 13 - PHYSICS

NAG 8 1446 UNIVERSITY OF COLORADO - BOULDER 3284
 FUNDAMENTAL PHYSICS USING FREQUENCY STABILIZED LASERS AS OPTICAL ATOMIC CLOCKS
 02/05/1998 - 01/31/2001 FY99: \$95,290 Total: \$126,000
 Prin. Invest.: J HALL
 Tech. Officer: MSFC/D HUBBARD
 CASE Category: 13 - PHYSICS

NAG 8 1475 UNIVERSITY OF COLORADO - BOULDER 3285
 INFLUENCE OF SOLUTOCAPILLARY CONVECTION ON MACRO- VOID DEFECT FORMATION IN POLYMERIC MEMBRANES
 02/03/1998 - 01/31/2002 FY99: \$69,600 Total: \$117,600
 Prin. Invest.: A GREENBERG
 Tech. Officer: MSFC/P M DOTY
 CASE Category: 13 - PHYSICS

NAG 8 1551 UNIVERSITY OF COLORADO - BOULDER 3286
 R/S DESIGN AND CALIBRATION OF AUTONOMOUS COHERENT DOPPLER LIDAR FOR SPACE MISSIONS
 12/01/1998 - 11/30/2001 FY99: \$126,185 Total: \$126,185
 Prin. Invest.: R FREHLICH
 Tech. Officer: MSFC/M KAVAYA
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 1125 UNIVERSITY OF COLORADO - BOULDER 3287
 ROBOTIC FIXTURE FOR SPACE STATION
 06/30/1999 - 11/30/1999 FY99: \$50,000 Total: \$50,000
 Prin. Invest.: L PETERSON
 Tech. Officer: JSC/C J CULBERT, JSC/C PRICE
 CASE Category: 49 - ENGINEERING, OTHER

NAGW 766 UNIVERSITY OF COLORADO - BOULDER 3288
 THEORY OF SPECTRA FORMATION IN ASTROPHYSICAL SYSTEMS
 07/15/1985 - 09/30/1997 FY99: -\$2 Total: \$2,594,598
 Prin. Invest.: J M SCHULL
 Tech. Officer: HQ/G C CLAYTON, HQ/A N BUNNER
 CASE Category: 11 - ASTRONOMY

NAGW 1197 UNIVERSITY OF COLORADO - BOULDER 3289
 CENTER FOR THE COMMERCIAL DEVELOPMENT
 10/14/1987 - 09/30/1997 FY99: -\$9,429 Total: \$14,727,217
 Prin. Invest.: M LUTTGES, J BERRYMAN
 Tech. Officer: HQ/W A ORAN, HQ/A VILLAMIL
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 1388 UNIVERSITY OF COLORADO - BOULDER 3290
 CENTER FOR SPACE CONSTRUCTION
 07/20/1988 - 09/30/1998 FY99: -\$1 Total: \$10,190,041
 Prin. Invest.: G W MORGANTHALER, S STURE
 Tech. Officer: HQ/M S HIRSCHBEIN, HQ/S C HARTMAN
 CASE Category: 49 - ENGINEERING, OTHER

NAGW 2438 UNIVERSITY OF COLORADO - BOULDER 3291
 NAGW-2438/UNIV COLORADO/LABORATORY STUDIES OF LOW TEMPERATURE RATE COEFFICIENTS: THE ATMOSPHERIC
 05/23/1991 - 12/31/1997 FY99: \$0 Total: \$438,000
 Prin. Invest.: S R LEONE Prin. Invest.: NONE
 Tech. Officer: HQ/J T BERGSTRALH
 CASE Category: 11 - ASTRONOMY

NAGW 2492 UNIVERSITY OF COLORADO - BOULDER 3292
 IMAGING AND SPECTROSCOPY OF TO'S TOURS AND ATMOSPHERE
 07/25/1991 - 12/31/1997 FY99: -\$544 Total: \$337,534
 Prin. Invest.: N M SCNEIDER
 Tech. Officer: HQ/J H RAHE
 CASE Category: 11 - ASTRONOMY

NAGW 3485 UNIVERSITY OF COLORADO - BOULDER 3293
 INVESTIGATION OF DYNAMICAL AND CHEMICAL BEHAVIOR OF THE LOWER STRATOSPHERE AND INTERACTIONS
 06/16/1993 - 09/30/1998 FY99: \$0 Total: \$385,000
 Prin. Invest.: M L SALBY
 Tech. Officer: HQ/J A KAYE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3600 UNIVERSITY OF COLORADO - BOULDER 3294
 COMPARISON OF INTERPLANETARY AND INTERSTELLAR GRAINS
 06/09/1993 - 09/30/1997 FY99: -\$24 Total: \$66,562
 Prin. Invest.: T P SNOW
 Tech. Officer: HQ/J A NUTH III
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3838 UNIVERSITY OF COLORADO - BOULDER 3295
 NAGW-3838/B UNIV. COLORADO: "WHAT DRIVES THE OUTFL OWS IN
 BROAD ABSORPTION LINE QSOS?"
 12/21/1993 - 09/30/1997 FY99: -\$11 Total: \$89,989
Prin. Invest.: M C BEGELMAN
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 4145 UNIVERSITY OF COLORADO - BOULDER 3296
 JMEX/SAC-D DEFINITION STUDY
 09/28/1994 - 09/30/1998 FY99: \$0 Total: \$50,000
Prin. Invest.: N SCHNEIDER
Tech. Officer: HQ/E C WHIPPLE, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4689 UNIVERSITY OF COLORADO - BOULDER 3297
 SATELLITE REMOTE SENSING OF ECOSYSTEM STRUCTURAL & FUNC-
 TIONAL CHANGES: INTEGRATING SPECTRAL MIXTURE
 08/10/1995 - 09/30/1997 FY99: -\$2,268 Total: \$212,732
Prin. Invest.: C WESSMAN
Tech. Officer: HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4743 UNIVERSITY OF COLORADO - BOULDER 3298
 GENERATION OF LEVEL 3 SSM/I BRIGHTNESS TEMPERATURE S FOR THE
 PERIOD 1978-1988
 09/08/1995 - 06/30/1998 FY99: -\$1,160 Total: \$268,841
Prin. Invest.: R L AMSTRONG
Tech. Officer: HQ/M E MAIDEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4755 UNIVERSITY OF COLORADO - BOULDER 3299
 RADARSAT ANTARCTIC MAPPING PROJECT
 09/21/1995 - 06/30/1998 FY99: -\$2,828 Total: \$13,029
Prin. Invest.: R BARRY, T SCAMBOS
Tech. Officer: HQ/M E MAIDEN, HQ/D M BUTLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4803 UNIVERSITY OF COLORADO - BOULDER 3300
 NEXT GENERATION X-RAY OBSERVATORY
 10/18/1995 - 09/30/1997 FY99: -\$1,108 Total: \$136,892
Prin. Invest.: W C CASH
Tech. Officer: HQ/M KAPLAN, HQ/D W WEEDMAN
CASE Category: 13 - PHYSICS

NAS 5 32392 UNIVERSITY OF COLORADO - BOULDER 3301
 OPERATION OF SNOW & ICE DISTRIBUTED ACTIVE ARCHIVE CENTER.
 04/19/1993 - 01/31/1998 FY99: -\$53,676 Total: \$11,369,000
Prin. Invest.: R G BARRY
Tech. Officer: GSFC/G HUNOLT
CASE Category: 42 - ASTRONAUTICAL ENGR

NAS 5 97045 UNIVERSITY OF COLORADO - BOULDER 3302
 EXTENSION OF SOLSTICE PHASE B EFFORT
 02/21/1997 - 01/15/2000 FY99: \$9,699,149 Total: \$15,122,415
Prin. Invest.: G ROTTMAN
Tech. Officer: GSFC/V GRIFFIN
CASE Category: 42 - ASTRONAUTICAL ENGR

NAS 5 97046 UNIVERSITY OF COLORADO - BOULDER 3303
 LETTER CONTRACT FOR HIRDIS PHASE C/D/E
 01/17/1997 - 03/31/2008 FY99: \$27,402,000 Total: \$69,673,095
Prin. Invest.: J GILLE
Tech. Officer: GSFC/L MILAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 97140 UNIVERSITY OF COLORADO - BOULDER 3304
 DATA ANALYSIS CEPPAD
 03/06/1997 - 07/31/1999 FY99: \$0 Total: \$350,000
Prin. Invest.: D BAKER
Tech. Officer: GSFC/R A HOFFMAN
CASE Category: 11 - ASTRONOMY

NAS 5 97145 UNIVERSITY OF COLORADO - BOULDER 3305
 MISSION OPERATIONS, DATA ANALYSIS, AND ALGORITHM MAINTENANCE
 FOR UARS SOLSTICE
 03/31/1997 - 11/30/1999 FY99: \$270,000 Total: \$1,027,715
Prin. Invest.: G J ROTTMAN
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 98043 UNIVERSITY OF COLORADO - BOULDER 3306
 SCIENCE MANAGEMENT FOR COS
 03/04/1998 - 08/15/2003 FY99: \$4,328,000 Total: \$5,163,000
Prin. Invest.: J GREEN
Tech. Officer: GSFC/L FEINBERG
CASE Category: 11 - ASTRONOMY

NAS 5 98070 UNIVERSITY OF COLORADO - BOULDER 3307
 OPERATION OF SNOW AND ICE DISTRIBUTED ACTIVE ARCHIVE
 01/29/1998 - 01/31/2003 FY99: \$3,451,851 Total: \$6,001,851
Prin. Invest.: R WEAVER, V TROISI
Tech. Officer: GSFC/M REPH
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 98160 UNIVERSITY OF COLORADO - BOULDER 3308
 TOTAL SOLAR IRRADIANCE MISSION (TSIM)
 07/22/1998 - 02/21/2000 FY99: \$457,228 Total: \$1,865,940
Prin. Invest.: G ROTHMAN
Tech. Officer: GSFC/V L GRIFFIN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 38779 UNIVERSITY OF COLORADO - BOULDER 3309
 MECHANICS OF GRANULAR MATERIAIS MICROGRAVITY
 09/24/1992 - 10/31/1999 FY99: \$306,756 Total: \$2,920,661
Prin. Invest.: S STURE
Tech. Officer: MSFC/B GUYNES
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 1 281 UNIVERSITY OF COLORADO - BOULDER 3310
 NANOMECHANICS OF ACTIVELY CONTROLLED DEPLOYABLE OPTICS
 03/11/1998 - 03/10/2000 FY99: \$116,425 Total: \$191,425
Prin. Invest.: L D PETERSON
Tech. Officer: LARC/M S LAKE
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 2 904 UNIVERSITY OF COLORADO - BOULDER 3311
 COMPREHENSION BASED ANALYSIS OF AUTOFLIGHT SYSTEM INTER-
 FACES
 06/28/1995 - 10/31/1998 FY99: \$0 Total: \$241,969
Prin. Invest.: P G POLSON
Tech. Officer: ARC/E A PALMER, ARC/M SHAFTO
CASE Category: 49 - ENGINEERING, OTHER

NCC 2 1052 UNIVERSITY OF COLORADO - BOULDER 3312
 CENTER FOR ASTROBIOLOGY
 08/28/1998 - 06/30/2003 FY99: \$334,187 Total: \$439,187
Prin. Invest.: B JAKOSKI
Tech. Officer: ARC/J CUZZI
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 1104 UNIVERSITY OF COLORADO - BOULDER 3313
 A COMPREHENSIVE-BASED ANALYSIS OF SHARED CONCEPTUAL MOD-
 ELS OF AVIONICS SYSTEMS
 04/02/1999 - 12/31/1999 FY99: \$68,711 Total: \$68,711
Prin. Invest.: P POISON
Tech. Officer: ARC/E A PALMER, ARC/N SMITH
CASE Category: 21 - MATHEMATICS

NCC 2 1112 UNIVERSITY OF COLORADO - BOULDER 3314
 COMPREHENSION OF NAVIGATION DIRECTIONS
 04/14/1999 - 10/31/1999 FY99: \$24,998 Total: \$24,998
Prin. Invest.: A F HEALY
Tech. Officer: ARC/I BARSHI
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 5258 UNIVERSITY OF COLORADO - BOULDER 3315
 RESEARCH ON SYSTEM TECHNOLOGIES AND MASS FLOW CHARACTERIS-
 TICS IN A CLOSED PLANT GROWTH FACILITY
 03/04/1998 - 03/31/1999 FY99: \$34,994 Total: \$94,994
Prin. Invest.: A HOEHN
Tech. Officer: ARC/M H KLISS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5290 UNIVERSITY OF COLORADO - BOULDER 3316
 INTEGRATION & SUPPORT OF NIH-B1 DROSOPHILA MELANOGASTER NEU-
 RAL DEVELOPMENT EXPERIMENT ON SHUTTLE...
 08/20/1998 - 10/31/1999 FY99: \$47,959 Total: \$57,959
Prin. Invest.: L STODIECK
Tech. Officer: ARC/D REISS-BUBENHEIM, ARC/P D SAVAGE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5300 UNIVERSITY OF COLORADO - BOULDER 3317
 THE ROLE OF CLOUDS IN LONG-TERM HABITABILITY OF PLANETS
 11/18/1998 - 02/28/2000 FY99: \$91,770 Total: \$91,770
Prin. Invest.: O B TOON
Tech. Officer: ARC/R E YOUNG, ARC/R M HABERLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5327 UNIVERSITY OF COLORADO - BOULDER 3318
 ADDRESSING LONG-TERM USE ISSUES OF CLOSED SPACE FLIGHT PLANT
 GROWTH SYSTEM
 06/07/1999 - 10/31/1999 FY99: \$82,004 Total: \$82,004
Prin. Invest.: A HOEHN
Tech. Officer: ARC/M H KLISS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 8 131 UNIVERSITY OF COLORADO - BOULDER 3319
 BIONERVE SPACE TECHNOLOGIES
 01/31/1997 - 10/31/1999 FY99: \$2,645,000 Total: \$6,650,000
Prin. Invest.: G MORGENTHAUER
Tech. Officer: MSFC/S J LAMBING
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 9 65 UNIVERSITY OF COLORADO - BOULDER 3320
 SPACE STATION BASED MIRROR ACCURACY DEPLOYMENT EXPERIMENT
 07/01/1997 - 10/31/1999 FY99: \$110,000 Total: \$475,362
Prin. Invest.: L PETERSON
Tech. Officer: JSC/C PARRA
CASE Category: 41 - AERONAUTICAL ENGINEER

NGT 40008 UNIVERSITY OF COLORADO - BOULDER 3321
 NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM
 10/19/1989 - 02/28/2000 FY99: \$0 Total: \$2,773,666
Prin. Invest.: E R HANSEN
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NGT 51297 UNIVERSITY OF COLORADO - BOULDER 3322
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1994 - 12/31/1997 FY99: -\$54 Total: \$65,946
Prin. Invest.: G W MORGENTHAUER
Tech. Officer: HQ/D HOLLAND
CASE Category: 41 - AERONAUTICAL ENGINEER

NGT 51642 UNIVERSITY OF COLORADO - BOULDER 3323
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/08/1996 - 09/30/1997 FY99: -\$1,576 Total: \$20,424
Prin. Invest.: E ZWIBEL
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 - PHYSICS

NGT 1 52134 UNIVERSITY OF COLORADO - BOULDER 3324
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/18/1996 - 06/30/1998 FY99: \$0 Total: \$44,001
Prin. Invest.: R W MILLER
Tech. Officer: LARC/G J BRAUKMANN, LARC/J W PAULSON
CASE Category: 41 - AERONAUTICAL ENGINEER

NGT 1 52139 UNIVERSITY OF COLORADO - BOULDER 3325
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/26/1996 - 06/30/1998 FY99: \$0 Total: \$44,000
Prin. Invest.: K S CRUMPTON
Tech. Officer: LARC/D J KATZBERG, LARC/H R KOWITZ
CASE Category: 41 - AERONAUTICAL ENGINEER

NGT 1 52182 UNIVERSITY OF COLORADO - BOULDER 3326
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 12/01/1998 - 08/31/2000 FY99: \$44,000 Total: \$44,000
Prin. Invest.: M J ARMATYS, P AXELRAD
Tech. Officer: LARC/S J KATZBERG
CASE Category: 41 - AERONAUTICAL ENGINEER

NGT 2 52234 UNIVERSITY OF COLORADO - BOULDER 3327
 A STRUCTURAL ANALYSIS APPROACH TO EXAMINING THE EFFECTS OF
 DISUSE OSEOPOROSIS
 08/26/1997 - 07/31/1999 FY99: \$0 Total: \$44,000
 Prin. Invest.: S J SIMSKE
 Tech. Officer: ARC/R T WHALEN
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 3 52306 UNIVERSITY OF COLORADO - BOULDER 3328
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/31/1995 - 08/31/1998 FY99: \$0 Total: \$66,000
 Prin. Invest.: R H DAVIS
 Tech. Officer: GRC/L SHAW
 CASE Category: 43 - CHEMICAL ENGR

NGT 5 5 UNIVERSITY OF COLORADO - BOULDER 3329
 TIDAL WAVELENGTHS FROM ALONG TRACK ALTIMETRY AND IMPLICA-
 TIONS FOR GRIDDING TIDAL SOLUTIONS
 06/22/1995 - 06/30/1998 FY99: -\$78 Total: \$65,922
 Prin. Invest.: G H BORN
 Tech. Officer: GSFC/G A SOFFEN, GSFC/R S NEREM
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 38 UNIVERSITY OF COLORADO - BOULDER 3330
 THIS AGREEMENT PROVIDES LAST YEAR OF FUNDING FOR U CENTER
 FOR SPACE CONTRUCTION GRADUATES.
 05/05/1997 - 10/31/1997 FY99: -\$13 Total: \$124,653
 Prin. Invest.: R SU
 Tech. Officer: GSFC/R AVANT
 CASE Category: 49 - ENGINEERING, OTHER

NGT 5 47 UNIVERSITY OF COLORADO - BOULDER 3331
 INVESTIGATION OF HARDWARE AND ALGORITHM ARCHITECTU GEO AND
 HEO ORBITS
 06/23/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: P AXELRAD
 Tech. Officer: GSFC/M S BURRELL
 CASE Category: 46 - MECHANICAL ENGR

NGT 5 49 UNIVERSITY OF COLORADO - BOULDER 3332
 OUTER ELECTRON BELT MODELING BY ASSIMILATION OF RE DATA
 06/23/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: D N BAKER
 Tech. Officer: GSFC/M S BURRELL
 CASE Category: 11 - ASTRONOMY

NGT 5 74 UNIVERSITY OF COLORADO - BOULDER 3333
 GSRP TRAINING GRANT FOR ELLEN RIDDLE. TITLE: USE OF OPTIMIZA-
 TIONMETHODS IN SMALL SATELLITE
 06/12/1998 - 07/31/1999 FY99: \$0 Total: \$22,000
 Prin. Invest.: G MORGENTHALER
 Tech. Officer: GSFC/G SOFFEN
 CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 80 UNIVERSITY OF COLORADO - BOULDER 3334
 THE STRUCTURE AND DEVELOPMENT OF SUPERNOVA REMNANT 1987A
 (STUDENT): ELI MICHAEL
 05/12/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: R MCCRAY
 Tech. Officer: GSFC/M S BURRELL
 CASE Category: 13 - PHYSICS

NGT 5 93 UNIVERSITY OF COLORADO - BOULDER 3335
 USE OF REMOTE SENSING IMAGERY IN BIOGEOCHEMICAL MOD ELS TO
 PREDICT TRACE GAS EMISSIONS & CROP YEILD
 06/15/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: N KHATIB
 Tech. Officer: GSFC/J L PRIVETTE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30003 UNIVERSITY OF COLORADO - BOULDER 3336
 SATELLITE REMOTE SENSING OF ECOSYSTEM STRUCTURAL A IN SPA-
 TIALY HETEROGENEOUS REGIONS:
 10/11/1996 - 02/28/1999 FY99: -\$58 Total: \$43,942
 Prin. Invest.: D A WEISMAN
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30023 UNIVERSITY OF COLORADO - BOULDER 3337
 EL NINO PREDICTION USING HUERISTIC ALGORITHMS
 10/14/1996 - 11/30/1999 FY99: \$0 Total: \$66,000
 Prin. Invest.: D WEBSTER
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30025 UNIVERSITY OF COLORADO - BOULDER 3338
 PROPOSAL FOR THE STUDY AND MODELING OF THE MAGMATI MECH-
 ANISM AT LONG VALLEY CALDERA, CALIFORNIA
 10/17/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
 Prin. Invest.: J B RUNDLE
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 5 30026 UNIVERSITY OF COLORADO - BOULDER 3339
 SCALABLE AND ADAPTIVE FILE MANAGEMENT IN NETWORKS
 10/17/1996 - 03/31/2000 FY99: \$655 Total: \$66,655
 Prin. Invest.: D WEISMAN
 Tech. Officer: HQ/G ASRAR
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30034 UNIVERSITY OF COLORADO - BOULDER 3340
 IMPROVING THE PREDICTABILITY OF POLAR CLIMATE THRO ASSIMILATION
 OF REMOTELY-SENSED DATA
 10/17/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
 Prin. Invest.: J MASLANIK
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30059 UNIVERSITY OF COLORADO - BOULDER 3341
 THIRD YEAR FUNDING: A 14000 YEAR RECORD OF DECADE TROPICAL CLI-
 MATE VARIABILITY FROM ANNUALLY-LAMINA
 09/10/1997 - 08/31/1998 FY99: -\$1 Total: \$21,999
 Prin. Invest.: J OVERPECK
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30072 UNIVERSITY OF COLORADO - BOULDER 3342
 PASSIVE MICROWAVE MEASUREMENTS OF ARCTIC CLOUDS
 09/09/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: J CURRY
 Tech. Officer: GSFC/M WEI
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

COLORADO

NASA'S UNIVERSITY PROGRAM

NGT 5 30076 UNIVERSITY OF COLORADO - BOULDER 3343
 ATMOSPHERIC LIFETIMES OF PEROXY NITRATES
 STUDENT - EDW
 09/09/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: A R RAVIS
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30102 UNIVERSITY OF COLORADO - BOULDER 3344
 PROPOSAL TO STUDY THE SURFACE PROPERTIES AND CHEMISTRY OF
 MODEL POLAR STRATOSPHERIC CLOUDS GSRP
 10/31/1997 - 08/31/1998 FY99: -\$14 Total: \$21,986
 Prin. Invest.: M TOLBERT
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30128 UNIVERSITY OF COLORADO - BOULDER 3345
 SPATIAL VARIABILITY OF CLOUD CHARACTERISTICS & SURFACE RADI-
 ATION FLUXES FOR SHEBA/FIRE III
 10/01/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: J CURRY
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30136 UNIVERSITY OF COLORADO - BOULDER 3346
 LABORATORY STUDIES OF CIRRUS CLOUD FORMATION MECHANISMS/
 STUDENT: FORTIN
 09/04/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: M TOLBERT
 Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30155 UNIVERSITY OF COLORADO - BOULDER 3347
 COMPARISONS OF THREE-DIMENSIONAL GENERAL CIRCULATION MODEL
 SIMULATIONS OF THE DESERT AEROSOL LIFE
 08/28/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: B TOON, COLARCO
 Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30170 UNIVERSITY OF COLORADO - BOULDER 3348
 ATMOSPHERIC CIRCULATION AND REGIONAL SEA ICE SENSITIVITY IN THE
 ARCTIC STUDENT: LYNCH CULLATHER
 09/04/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: A H LYNCH
 Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30180 UNIVERSITY OF COLORADO - BOULDER 3349
 SPATIAL AND TEMPORAL RESPONSE TO ANTHROPOGENIC NITROGEN
 DEPOSITION IN A HETEROGENEOUS ROCKY MOUNTAIN
 08/12/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: C A WESSMAN
 Tech. Officer: GSFC/L SMITH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30209 UNIVERSITY OF COLORADO - BOULDER 3350
 IN SITU MEASUREMENTS OF CARBON DIOXIDE IN THE UPPER TROPO-
 SPHERE & LOWER STRATOSPHERE/STUDENT GAT
 08/18/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: L M AVALLONE
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40028 UNIVERSITY OF COLORADO - BOULDER 3351
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 12/31/1996 - 01/31/2000 FY99: \$475,000 Total: \$1,392,748
 Prin. Invest.: E R HANSEN
 Tech. Officer: GSFC/D D DETROYE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50022 UNIVERSITY OF COLORADO - BOULDER 3352
 CHEMISTRY IN COMETS HALE-BOOP AND HYAKUTAKE
 07/17/1997 - 02/02/1999 FY99: -\$22,000 Total: \$0
 Prin. Invest.: W CASH
 Tech. Officer: HQ/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50032 UNIVERSITY OF COLORADO - BOULDER 3353
 THE RELATIONSHIP BETWEEN INTERSTELLAR DUST EXTINCTION OF THE
 INTERSTELLAR GAS
 07/14/1997 - 12/31/1998 FY99: -\$351 Total: \$21,649
 Prin. Invest.: D P SNOW
 Tech. Officer: GSFC/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50056 UNIVERSITY OF COLORADO - BOULDER 3354
 BOUNDED WAVELET ANALYSIS OF OCEANOGRAPHIC REMOTE
 07/28/1997 - 06/30/1998 FY99: -\$189 Total: \$21,811
 Prin. Invest.: D ETTER
 Tech. Officer: GSFC/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50070 UNIVERSITY OF COLORADO - BOULDER 3355
 STUDY THE MECHANISM OF HETEROGENEOUS ATMOSPHERIC POLAR
 STRATOSPHERIC CLOUDS
 08/29/1997 - 08/31/1998 FY99: -\$33 Total: \$21,967
 Prin. Invest.: M TOLBERT
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50090 UNIVERSITY OF COLORADO - BOULDER 3356
 GRADUATE STUDENT RESEARCHERS PROGRAM
 09/05/1997 - 08/31/1998 FY99: -\$55 Total: \$21,945
 Prin. Invest.: P TODD
 Tech. Officer: HQ/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50102 UNIVERSITY OF COLORADO - BOULDER 3357
 PROPOSAL FOR THE DEVELOPMENT, EXPLORATION, AND VALIDATION OF A
 FULLY THREE-DIMENSIONAL EARTHQUAKE MODEL
 09/06/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: J RUNDLE
 Prin. Invest.: NONE
 Tech. Officer: GSFC/M WEI
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50106 UNIVERSITY OF COLORADO - BOULDER 3358
 DETERMINATION OF OPTICAL CONSTANTS FOR THE REMOTE STRATO-
 SPHERIC CLOUDS AND GLOBALAEROSOLS
 09/06/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M TOLBERT
Tech. Officer: GSFC/M WEI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50124 UNIVERSITY OF COLORADO - BOULDER 3359
 DETECTION OF POLEWARD PROPAGATING ENSO SIGNALS USI
 09/09/1997 - 06/30/1998 FY99: -\$3 Total: \$21,997
Prin. Invest.: R LEBEN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50141 UNIVERSITY OF COLORADO - BOULDER 3360
 INVESTIGATIONS OF A P MODE PROPOGATION IN THE SOLA
 09/10/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: E G ZWEIBEL
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50176 UNIVERSITY OF COLORADO - BOULDER 3361
 A STUDY OF THE HOT COMPONENT OF THE LOCAL INTERSTELLAR
 MEDIUM
 05/22/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J C GREEN/MCLEAN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50181 UNIVERSITY OF COLORADO - BOULDER 3362
 ADAPTIVE CONTROL ARCHITECTURES FOR ADVANCED SPACE EXPLORA-
 TION
 02/10/1998 - 12/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: R SU
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50194 UNIVERSITY OF COLORADO - BOULDER 3363
 STELLAR EVOLUTION IN STARBURST GALAXIES
 06/05/1998 - 07/31/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: P S CONTI
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50197 UNIVERSITY OF COLORADO - BOULDER 3364
 MARTIAN SURFACE MAGNETIC FIELD
 06/11/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: F BAGENAL
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50221 UNIVERSITY OF COLORADO - BOULDER 3365
 IMPLICATIONS OF LAND-USE LEGACIES IN THE DUKE FOREST:
 ASSESSING CHANGES IN LAND COVER, FOREST PRODU
 09/29/1998 - 08/31/2000 FY99: \$0 Total: \$22,923
Prin. Invest.: D URBAN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50232 UNIVERSITY OF COLORADO - BOULDER 3366
 TIDES AND ZONAL MEAN FROM SATELLITE-BASED MEASUREMENTS:
 ANALYSIS TECHNIQUES
 05/27/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J FORBES
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50237 UNIVERSITY OF COLORADO - BOULDER 3367
 MODELING THE POST-RUNAWAY GROWTH OF TERRESTRIAL PLANETS
 (STUDENT: CRAIG AGNOR)
 05/27/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R CANUP
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50241 UNIVERSITY OF COLORADO - BOULDER 3368
 PROBING CORONAL STRUCTURE & VARIABILITY IN ACTIVE BINARY SYS-
 TEMS
 06/03/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: A BROWN, NONE
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50242 UNIVERSITY OF COLORADO - BOULDER 3369
 MAPPING THE DETAILED STRUCTURE OF THE LOCAL INTERSTELLAR
 MEDIUM
 06/03/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J LINSKY
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50271 UNIVERSITY OF COLORADO - BOULDER 3370
 LANDSCAPE DYNAMICS IN THE ARID SOUTHWEST: INTERACTIONS OF
 ECOSYSTEM PATTERN & PROCESS THROUGH TIME
 08/12/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: C WESSMAN
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 22 UNIVERSITY OF COLORADO - BOULDER 3371
 REMOTELY DETERMINING MATERIAL TYPE OF ORBITAL DEB
 05/30/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: L NELSON
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 49 - ENGINEERING, OTHER

NSG 5303 UNIVERSITY OF COLORADO - BOULDER 3372
 ULTRAVIOLET MEASUREMENTS WITH HIGH SPECTRAL RESOLUTION
 09/15/1978 - 11/30/1997 FY99: -\$105 Total: \$6,464,659
Prin. Invest.: T P SNOW, JR., W E MCCLINTOCK, WC CASH
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 11 - ASTRONOMY

NAG 5 7327 UNIVERSITY OF COLORADO - DENVER 3373
 CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZERS
 04/29/1998 - 04/30/1999 FY99: \$0 Total: \$1,000
Prin. Invest.: A C SADUN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8384 UNIVERSITY OF COLORADO - DENVER 3374
 4 CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 05/24/1999 - 05/31/2000 FY99: \$1,000 Total: \$1,000
Prin. Invest.: A SADUN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG13 57 UNIVERSITY OF COLORADO AT COLORADO SPRINGS 3375
 SMALL SPACECRAFT TECHNOLOGY INITIATIVE SAME
 09/30/1997 - 06/29/1998 FY99: -\$9,161 Total: \$5,671
Prin. Invest.: C FOSHA, M AUGUSTEIOJN
Tech. Officer: SSC/V ZANONI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1918 UNIVERSITY OF DENVER 3376
 COLLECTION AND ANALYSIS OF AIRCRAFT EMITTED PARTICLES
 04/25/1997 - 01/31/1999 FY99: \$0 Total: \$52,605
Prin. Invest.: J C WILSON
Tech. Officer: LARC/B E ANDERSON, LARC/W R COFER, III
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 351 UNIVERSITY OF DENVER 3377
 INFRARED MEASUREMENTS OF ATMOSPHERIC CONSTITUENTS
 12/12/1985 - 12/31/1999 FY99: \$377,036 Total: \$5,447,436
Prin. Invest.: D G MURCRAY
Tech. Officer: ARC/R S HIPSKIND, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1229 UNIVERSITY OF DENVER 3378
 ANALYSIS OF AIRCRAFT PLUMES ENCOUNTERED BY THE NASA ER-2 IN THE TROPOSPHERE
 06/08/1998 - 05/31/1999 FY99: \$16,325 Total: \$55,505
Prin. Invest.: J C WILSON
Tech. Officer: ARC/R S HIPSKING, ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1242 UNIVERSITY OF DENVER 3379
 LABORATORY TESTING & CALIBRATION OF THE NUCLEI-MODE AEROSOL SIZE SPECTROMETER
 07/28/1998 - 07/31/1999 FY99: \$0 Total: \$22,268
Prin. Invest.: C A BROCK
Tech. Officer: ARC/R S HIPSKING
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1269 UNIVERSITY OF DENVER 3380
 MEASUREMENTS OF NUCLEATION-MODE PARTICLE SIZE DISTRIBUTIONS IN AIRCRAFT PLUMES DURING SULFUR6
 09/21/1998 - 08/31/1999 FY99: \$34,153 Total: \$40,330
Prin. Invest.: C A BROCK
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1297 UNIVERSITY OF DENVER 3381
 IN SITU AEROSOL SIZE DISTRIBUTION MEASUREMENTS FROM THE ER-2 SAGE III VALIDATION & STUDIES OF OZONE
 03/09/1999 - 01/31/2000 FY99: \$169,000 Total: \$169,000
Prin. Invest.: J C WILSON
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1301 UNIVERSITY OF DENVER 3382
 MEASUREMENTS OF PARTICLE SIZE DISTRIBUTIONS FROM 4 -2000NM DIAMETER ON THE DC-8 FOR THE SAGE III OZO
 03/06/1999 - 10/31/1999 FY99: \$32,712 Total: \$32,712
Prin. Invest.: J M REEVES, J C WILSON
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1305 UNIVERSITY OF DENVER 3383
 IN SITU AEROSOL SIZE DISTRIBUTION MEASUREMENTS FROM THE WB57F FOR ACCENT 1999
 03/12/1999 - 02/29/2000 FY99: \$80,000 Total: \$80,000
Prin. Invest.: J C WILSON
Tech. Officer: ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3386 UNIVERSITY OF DENVER 3384
 CALIBRATION AND SCIENTIFIC SUPPORT OF LENA FOR THE IMAGE SATELLITE PROGRAM
 09/04/1996 - 01/31/2000 FY99: \$54,000 Total: \$264,598
Prin. Invest.: T STEPHEN
Tech. Officer: GSFC/M SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 3411 UNIVERSITY OF DENVER 3385
 ISO OBSERVATIONS OF CIRCUMSTELLAR DISKS: CLUES TO OF PLANETS
 09/19/1996 - 08/31/1999 FY99: \$0 Total: \$237,000
Prin. Invest.: R E STENCEL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6467 UNIVERSITY OF DENVER 3386
 NEAR IR BALLOON-BORNE MEASUREMENTS IN SUPPORT OF SAGE III AND MOPITT
 11/12/1997 - 09/30/2000 FY99: \$21,785 Total: \$161,254
Prin. Invest.: F J MURCRAY
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6679 UNIVERSITY OF DENVER 3387
 GROUND BASED FTIR SOLAR SPECTRAL MEASUREMENTS IN SUPPORT OF MOPITT & SAGE III
 12/12/1997 - 12/31/1999 FY99: \$0 Total: \$89,964
Prin. Invest.: F J MURCRAY
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 1 96017 UNIVERSITY OF DENVER 3388
 COMPARISON OF INSITU AEROSOL SIZE DISTRIBUTIONS ACQUIRED IN THE UPPER TROPOSPHERE AND LOWER
 08/02/1996 - 08/02/1999 FY99: \$0 Total: \$71,000
Prin. Invest.: J C WILSON
Tech. Officer: LARC/G MADDREA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 48 UNIVERSITY OF DENVER 3389
COLLABORATIVE STUDY OF HIGH RESOLUTION INFRARED ATMOSPHERIC SPECTRA

11/26/1980 - 11/30/1999 FY99: \$0 Total: \$797,705
Prin. Invest.: A GOLDMAN, D G MURCRAY
Tech. Officer: LARC/C P RINSLAND, LARC/R K SEALS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 313 UNIVERSITY OF DENVER 3390
ANALYSIS OF ATMOSPHERIC MEASUREMENTS IN SUPPORT OF THE NETWORK FOR THE DETECTION OF STRATOSPHERIC CH
 07/22/1998 - 09/30/2001 FY99: \$0 Total: \$20,986
Prin. Invest.: F J MURCRAY
Tech. Officer: LARC/C P RINSLAND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 782 UNIVERSITY OF DENVER 3391
AEROSOL MEASUREMENTS FROM THE ER-2 IN SPADE II & A SHOME: UPGRADE OF THE FOCUSED CAVITY AEROSOL ...
 02/18/1993 - 06/30/1999 FY99: \$0 Total: \$1,599,064
Prin. Invest.: J C WILSON
Tech. Officer: ARC/E CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 894 UNIVERSITY OF DENVER 3392
HIGHLY RESOLVED AEROSOL MEASUREMENTS FROM HIGH ALTITUDE PLATFORMS: FOCUSED CAVITY AEROSOL
 03/21/1995 - 03/31/1998 FY99: \$0 Total: \$415,002
Prin. Invest.: J C WILSON
Tech. Officer: ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 3 470 UNIVERSITY OF DENVER 3393
INVESTIGATION OF POOL BOILING HEAT TRANSFER MECHANISM IN MICROGRAVITY USING AN ARRAY OF SURFACE MOUNTED
 05/03/1996 - 05/31/2000 FY99: -\$3,405 Total: \$227,596
Prin. Invest.: J KIM, T S KALKUR
Tech. Officer: GRC/J B MCQUILLEN
CASE Category: 49 - ENGINEERING, OTHER

NCC 8 176 UNIVERSITY OF DENVER 3394
INTERNATIONAL SPACE STATION METEOROID/ORBITAL DEBRIS HAZARD ASSESSMENT AND SOFTWARE DEVELOPMENT.
 12/22/1998 - 12/21/2001 FY99: \$200,000 Total: \$200,000
Prin. Invest.: J E WILLIAMS
Tech. Officer: MSFC/G D OLSEN
CASE Category: 42 - ASTRONAUTICAL ENGR

NSG 1432 UNIVERSITY OF DENVER 3395
GROUND MONITORING OF ATMOSPHERIC CONSTITUENTS BY HIGH RESOLUTION INFRARED SOLAR SPECTROSCOPY
 07/08/1977 - 04/10/1999 FY99: \$0 Total: \$1,322,700
Prin. Invest.: D G MURCRAY
Tech. Officer: LARC/C P RINSLAND, LARC/M A SMITH
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 1 52209 UNIVERSITY OF SOUTHERN COLORADO 3396
GRADUATE STUDENT RESEARCH PROGRAM (GSRP) YEAR 1
 05/25/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: L M GARRETT
Tech. Officer: LARC/A E MOTLEY, LARC/L D THOMAS
CASE Category: 41 - AERONAUTICAL ENGR

CONNECTICUT

NAG 5 5246 CENTRAL CONNECTICUT STATE UNIVERSITY 3397
NAG5-5246 LASER RADAR STUDIES PI PROF. NIMMI PARIKH
 04/12/1999 - 09/28/1999 FY99: \$13,977 Total: \$13,977
Prin. Invest.: N C PARIKH
Tech. Officer: GSFC/F SCHMIDLIN
CASE Category: 13 - PHYSICS

NAG 5 8650 FAIRFIELD UNIVERSITY 3398
OPTIMIZING PERFORMANCE OF FAR-INFRARED PHOTOCONDUCTORS: NEW APPROACH FOR INTERPRETATION & CALIBRATION
 07/29/1999 - 07/31/2000 FY99: \$82,155 Total: \$82,155
Prin. Invest.: N HAEGEL
Tech. Officer: GSFC/G MUCKLOW
CASE Category: 11 - ASTRONOMY

NAG 5 8048 TRINITY COLLEGE 3399
RETRIEVAL OF JOVIAN ATMOSPHERIC STRUCTURE FROM GALILEO NIMS
 01/14/1999 - 06/30/2000 FY99: \$11,051 Total: \$11,051
Prin. Invest.: D WEIR
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 6316 UNIV. OF CONNECTICUT HEALTH CENTER 3400
TRANSGENIC MARKERS OF BONE CELL LINEAGE PROGRESSION
 09/29/1997 - 09/30/2000 FY99: \$35,658 Total: \$281,784
Prin. Invest.: D ROWE
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 1 1382 UNIVERSITY OF CONNECTICUT 3401
NEAR-THRESHOLD FATIGUE CRACK GROWTH IN ALUMINUM ALLOYS AND Ti-6Al-4V FOR AMBIENT TO 400 DEGREES F
 02/28/1992 - 05/01/1998 FY99: -\$2,540 Total: \$306,378
Prin. Invest.: A J MCEVILY
Tech. Officer: LARC/J C NEWMAN, LARC/C E HARRIS
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1870 UNIVERSITY OF CONNECTICUT 3402
EVAPORATION, BOILING AND CONDENSATION ON/IN CAPILLARY STRUCTURES OF HIGH HEAT FLUX TWO-PHASE DEVICES
 05/09/1996 - 05/08/2000 FY99: \$90,000 Total: \$276,000
Prin. Invest.: A FAGHRI
Prin. Invest.: NONE
Tech. Officer: GRC/B S SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 5 7182 UNIVERSITY OF CONNECTICUT 3403
INVESTIGATION FOR A PERMANENT CHARACTERIZATION FACILITY FOR X-RAY & GAMMA-RAY DETECTORS TO BE F
 04/07/1998 - 04/30/1999 FY99: \$0 Total: \$8,000
Prin. Invest.: J SCHWEITZER
Tech. Officer: GSFC/J TROMBKA
CASE Category: 11 - ASTRONOMY

NAG 5 7654 UNIVERSITY OF CONNECTICUT 3404
ECOPHYSIOLOGY OF SUBPOPULATIONS OF ALEXANDRIUM TAMARENSE
 08/25/1998 - 08/31/2001 FY99: \$50,000 Total: \$100,000
Prin. Invest.: C ROESLER
Tech. Officer: HQ/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7813 UNIVERSITY OF CONNECTICUT 3405
 CALIBRATION OF GROUND-BASED WEATHER RADAR SYSTEMS FROM
 TRMM SAPCE-BASED RADAR OBSERVATIONS: A DEMON
 11/12/1998 - 12/31/1999 FY99: \$100,000 Total: \$100,000
Prin. Invest.: E N ANAGOSTOU
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7915 UNIVERSITY OF CONNECTICUT 3406
 DECIPHERING THE MOLECULAR RECORD OF EARLY EVOLUTIO N
 12/09/1998 - 11/30/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: P J GOGARTEN
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 8602 UNIVERSITY OF CONNECTICUT 3407
 DEVELOPMENT OF PLANETARY REMOTE SENSING TECHNOLOGY FOR
 APPLICATIONS TO TELEFORENSICS
 06/21/1999 - 06/30/2000 FY99: \$20,000 Total: \$20,000
Prin. Invest.: J S SCHWEITZER
Tech. Officer: GSFC/J I TROMBKA
CASE Category: 11 - ASTRONOMY

NAG 5 8636 UNIVERSITY OF CONNECTICUT 3408
 UNDERSTANDING THE ERROR CHARACTERISTICS OF PRECIPITATION
 ESTIMATES FROM SPACE-BASED OBSERVING SYSTEMS
 07/10/1999 - 09/30/1999 FY99: \$22,406 Total: \$22,406
Prin. Invest.: E N ANAGOSTOU
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1428 UNIVERSITY OF CONNECTICUT 3409
 BOSE-EINSTEIN CONDENSATE AND ATOM LASER: COHERENCE AND OPTI-
 CAL PROPERTIES
 02/02/1998 - 01/31/2003 FY99: \$63,000 Total: \$109,000
Prin. Invest.: J JAVANAINEN
Tech. Officer: MSFC/D HUBBARD
CASE Category: 13 - PHYSICS

NAGW 4572 UNIVERSITY OF CONNECTICUT 3410
 THE EARLY EVOLUTION OF PRO- AND EUKARYOTES
 06/09/1995 - 08/31/1998 FY99: \$0 Total: \$60,001
Prin. Invest.: J P GOGARTEN
Tech. Officer: HQ/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG10 191 UNIVERSITY OF CONNECTICUT 3411
 OPTICAL VERIFICATION LABORATORY DEMONSTRATION SYSTEM FOR
 HIGH-SECURITY IDENTIFICATION CARDS
 05/01/1996 - 01/29/1999 FY99: \$0 Total: \$100,000
Prin. Invest.: B JAVIDI
Tech. Officer: KSC/K POIMBOEUT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 246 UNIVERSITY OF CONNECTICUT 3412
 STUDY EFFECTS OF MICROGRAVITY ON EXPRESSION OF AUXIN
 08/01/1998 - 07/31/1999 FY99: \$140,000 Total: \$178,445
Prin. Invest.: Y LI
Tech. Officer: GSFC/G ETHERAGE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG13 99001 UNIVERSITY OF CONNECTICUT 3413
 BETTER LAND USE PLANNING FOR SUBURBANIZING NE, CREATING NET-
 WORK OF GEOSPATIAL INFORMATION
 02/19/1999 - 02/18/2002 FY99: \$1,099,576 Total: \$1,099,576
Prin. Invest.: D CIVCO
Tech. Officer: SSC/C HILL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 1067 UNIVERSITY OF CONNECTICUT 3414
 PRODUCTION & CONSUMPTION OF BIOGENIC GASES IN MICROBIAL MATS
 10/19/1998 - 09/30/1999 FY99: \$50,016 Total: \$50,016
Prin. Invest.: P T VISSCHER
Tech. Officer: ARC/B M BEBOUT, ARC/D J DES MARIAS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5245 UNIVERSITY OF CONNECTICUT 3415
 VERIFICATION AND VALIDATION OF HIGH INTEGRITY SOFTWARE FOR
 SAFETY-CRITICAL APPLICATION
 12/04/1997 - 11/30/1999 FY99: \$40,000 Total: \$99,885
Prin. Invest.: K R PATTIPATI
Tech. Officer: ARC/A PATTERSON-HIN, ARC/D KULKARNI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5328 UNIVERSITY OF CONNECTICUT 3416
 VERIFICATION & VALIDATION OF HIGH INTEGRITY SOFTWARE FOR SAFE-
 TY-CRITICAL APPLICATIONS
 06/25/1999 - 11/30/1999 FY99: \$20,085 Total: \$20,085
Prin. Invest.: K R PATTIPATI
Tech. Officer: ARC/A F PATTERSON-HINE
CASE Category: 22 - COMPUTER SCIENCE

NGT 30240 UNIVERSITY OF CONNECTICUT 3417
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/14/1994 - 08/31/1998 FY99: -\$190 Total: \$65,810
Prin. Invest.: J SILANDER
Tech. Officer: HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 82 UNIVERSITY OF CONNECTICUT 3418
 PREDICTING THE DISTRIBUTION OF BIODIVERSITY: INTEGRATING
 REMOTE SENSING TECHNOLOGY AND FIELD-BASED
 05/11/1999 - 07/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R COLWELL
Prin. Invest.: NONE
Tech. Officer: GSFC/M S BURRELL
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NCC 5 390 UNIVERSITY OF HARTFORD 3419
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/13/1999 - 05/31/2000 FY99: \$225,000 Total: \$225,000
Prin. Invest.: S TOWNSEND
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40037 UNIVERSITY OF HARTFORD 3420
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 08/15/1991 - 02/28/1998 FY99: -\$15,756 Total: \$1,087,995
Prin. Invest.: L S NAGURNEY
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40031 UNIVERSITY OF HARTFORD 3421
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 12/30/1996 - 02/28/2000 FY99: \$212,500 Total: \$595,000
Prin. Invest.: L S NAGURNEY
Tech. Officer: HQ/J DASCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1269 UNIVERSITY OF NEW HAVEN 3422
 JOVE RESEARCH
 01/21/1997 - 08/31/1999 FY99: \$0 Total: \$45,197
Prin. Invest.: S D BOGAN
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 4821 WESLEYAN UNIVERSITY 3423
 PHOTOMETRIC STUDIES OF T TAURI STARS
 06/18/1997 - 05/31/2000 FY99: \$85,908 Total: \$146,400
Prin. Invest.: D HERBST
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 2 948 YALE UNIVERSITY 3424
 SYNAPTOGENESIS IN MICROGRAVITY
 12/20/1994 - 02/29/2000 FY99: \$200,000 Total: \$554,933
Prin. Invest.: H S KESHISHIAN
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1688 YALE UNIVERSITY 3425
 SPRAY COMBUSTION AT NORMAL & REDUCED GRAVITY IN CO UNTER-
 FLOW & CO-FLOW CONFIGURATIONS
 12/12/1994 - 11/30/1998 FY99: \$0 Total: \$516,863
Prin. Invest.: A GOMEZ, NONE
Tech. Officer: GRC/D STOCKER
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1866 YALE UNIVERSITY 3426
 INVESTIGATION OF FUTURE MICROGRAVITY ATOMIC CLOCKS
 05/09/1996 - 05/08/1999 FY99: \$0 Total: \$150,000
Prin. Invest.: P GIBBLE
Tech. Officer: GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1935 YALE UNIVERSITY 3427
 RHEOLOGY OF CONCENTRATED EMULSIONS
 08/05/1996 - 05/31/2000 FY99: \$116,000 Total: \$394,000
Prin. Invest.: M LOEWENBERG
Tech. Officer: GRC/B SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 3 1939 YALE UNIVERSITY 3428
 COMPUTATIONAL & EXPERIMENTAL STUDY OF LAMINAR DIFFUSION
 FLAMES IN A MICROGRAVITY ENVIRONMENT
 08/05/1996 - 07/30/2000 FY99: \$106,000 Total: \$335,000
Prin. Invest.: M B LONG, M D SMOOKE
Tech. Officer: GRC/K J WEILAND, GRC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1951 YALE UNIVERSITY 3429
 DESIGN/INTERPRETATION OF MICROGRAVITY EXPERIMENT TO OBTAIN
 FLUID/SOLID BOUNDARY CONDITIONS IN NON-I
 08/14/1996 - 08/31/2000 FY99: \$81,000 Total: \$299,999
Prin. Invest.: D E ROSNER
Tech. Officer: GRC/B S SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 3 2147 YALE UNIVERSITY 3430
 SCIENTIFIC STUDIES AND TECHNOLOGY POTENTIAL OF ACOUSTO-ELEC-
 TRICALLY GENERATED DROP OR PARTICLE CLUS
 03/30/1998 - 10/06/1999 FY99: \$25,000 Total: \$100,000
Prin. Invest.: R E APLEL
Tech. Officer: GRC/R B ROGERS
CASE Category: 13 - PHYSICS

NAG 3 2262 YALE UNIVERSITY 3431
 COMPUTATIONAL AND EXPERIMENTAL STUDY OF ENERGETIC MATERIALS
 IN A COUNTERFLOW MICROGRAVITY ENVIRONMEN
 04/27/1999 - 04/06/2003 FY99: \$45,640 Total: \$45,640
Prin. Invest.: M D SMOOKE
Tech. Officer: GRC/D L URBAN
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 2892 YALE UNIVERSITY 3432
 SUPERCONDUCTING FILMS AND TUNNEL JUNCTIONS FOR SINGLY-PHO-
 TON X-RAY DETECTORS
 02/13/1995 - 09/30/1998 FY99: \$0 Total: \$344,000
Prin. Invest.: D E PROBER
Tech. Officer: GSFC/S H MOSELEY, GSFC/A E SZYMKOWIAK
CASE Category: 13 - PHYSICS

NAG 5 3686 YALE UNIVERSITY 3433
 THE PROPAGATION OF VERY HIGH ENERGY PARTICLES THRO
 01/14/1997 - 01/14/1999 FY99: \$0 Total: \$67,181
Prin. Invest.: P COPPI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3853 YALE UNIVERSITY 3434
 CLIMATE CHANGE AND HUMAN RESPONSE IN THE SEMI-ARID
 (148-65-80-27)
 12/16/1996 - 03/31/2000 FY99: \$399,707 Total: \$1,195,852
Prin. Invest.: R B SMITH
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3972 YALE UNIVERSITY 3435
 COASTAL WINDS AND ISLAND WAKES
 03/05/1997 - 03/31/2000 FY99: \$0 Total: \$123,600
Prin. Invest.: R B SMITH
Tech. Officer: GSFC/S H GOGINENI
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6054 YALE UNIVERSITY 3436
 "MOLECULAR MECHANISMS REGULATING IGF-1 SYNTHESIS I
 07/29/1997 - 12/31/1998 FY99: \$0 Total: \$139,557
Prin. Invest.: T MCCARTHY
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6404 **YALE UNIVERSITY** **3437**
 YBSERVATIONAL STUDIES OF DYNAMICAL EFFECTS IN GLOB ULAR CLUS-
 TERS
 11/04/1997 - 08/31/1999 FY99: \$104,000 Total: \$204,000
Prin. Invest.: C BAILYN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6691 **YALE UNIVERSITY** **3438**
 A BROAD-BAND, SIMULTANEOUS OBSERVATION OF CYGNUS X-1
 12/10/1997 - 11/30/1999 FY99: \$0 Total: \$10,000
Prin. Invest.: P COPPI
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6720 **YALE UNIVERSITY** **3439**
 EQUIPMENT FOR THE YALE CENTER FOR EARTH OBSERVATIO N
 12/10/1997 - 11/30/1998 FY99: -\$138 Total: \$141,435
Prin. Invest.: R SMITH
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7074 **YALE UNIVERSITY** **3440**
 STAR FORMATION IN THE EARLY UNIVERSE-ATP
 03/03/1998 - 02/14/2000 FY99: \$92,600 Total: \$186,600
Prin. Invest.: P COPPI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7409 **YALE UNIVERSITY** **3441**
 XTE PROPOSAL (30158) - COORDINATED, BROAD-BAND OBS ERVATIONS
 OF CYGNUS X-1
 05/28/1998 - 05/31/1999 FY99: \$0 Total: \$7,521
Prin. Invest.: P S COPPI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7739 **YALE UNIVERSITY** **3442**
 SUPERCONDUCTING FILMS AND TUNNEL JUNCTIONS FOR SIN GLE-PHO-
 TON X-RAYDETECTORS
 10/01/1998 - 05/31/2000 FY99: \$110,000 Total: \$110,000
Prin. Invest.: D PROBER
Tech. Officer: GSFC/A E SZMKOWIAK
CASE Category: 13 - PHYSICS

NAG 5 8406 **YALE UNIVERSITY** **3443**
 MODELING CONVECTION IN STARS; IMPROVING STELLAR MO DELS FOR
 STELLARPOPULATION SYNTHESIS (ATP-
 03/15/1999 - 03/14/2000 FY99: \$111,397 Total: \$111,397
Prin. Invest.: P F DEMARQUE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8434 **YALE UNIVERSITY** **3444**
 OBSERVATIONS OF A NEW OUTBURST OF AGL X-1 OR CEN X-4
 04/02/1999 - 03/31/2000 FY99: \$8,278 Total: \$8,278
Prin. Invest.: C D BAILYN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 8589 **YALE UNIVERSITY** **3445**
 PHOTON-COUNTING DETECTORS FOR SUBMILLIMETER IMAGIN G AND
 SPECTROSCOPY.
 07/08/1999 - 07/14/2000 FY99: \$265,000 Total: \$265,000
Prin. Invest.: R J SCHOELKOPF
Tech. Officer: GSFC/G MUCKLOW
CASE Category: 11 - ASTRONOMY

NAG 5 8813 **YALE UNIVERSITY** **3446**
 FROM RNA TO CONTEMPORARY METABOLISM: THE M1 RIBOZY ME AS A
 MODEL SYSTEM
 09/23/1999 - 08/31/2000 FY99: \$70,000 Total: \$70,000
Prin. Invest.: R L DORIT
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 8 1351 **YALE UNIVERSITY** **3447**
 NOVEL CONCEPTS IN ACOUSTOPHORESIS FOR BIO- TECHNOLOGY
 APPLICATIONS UNDER DIRECTION DR. APFEL.
 05/23/1997 - 11/30/2000 FY99: \$76,000 Total: \$182,000
Prin. Invest.: R E APFEL
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1443 **YALE UNIVERSITY** **3448**
 R/S ATOM INTEFEROMETRY IN A MIRCROGRAVITY ENVIRON- MENT
 02/06/1998 - 01/31/2003 FY99: \$100,000 Total: \$175,000
Prin. Invest.: M A KASEVICH
Tech. Officer: MSFC/D HUBBARD
CASE Category: 13 - PHYSICS

NAG 8 1449 **YALE UNIVERSITY** **3449**
 INVESTIGATION OF FUTURE MICROGRAVITY ATOMIC CLOCKS
 03/09/1998 - 03/01/2003 FY99: \$193,710 Total: \$350,000
Prin. Invest.: K GIBBLE
Tech. Officer: MSFC/D HUBBARD
CASE Category: 13 - PHYSICS

NAG 8 1461 **YALE UNIVERSITY** **3450**
 NUCLEATION AND GROWTH MECHANISMS UNDERLYING THE MICRO-
 STRUCTURE OF POLYMER FOAMS PRODUCED
 02/18/1998 - 01/31/2002 FY99: \$96,666 Total: \$163,333
Prin. Invest.: R E APFEL, D WU
Tech. Officer: MSFC/C TALLEY
CASE Category: 13 - PHYSICS

NCC 3 691 **YALE UNIVERSITY** **3451**
 COMBUSTION OF INDIVIDUAL BUBBLES AND SUBMERGED GAS JETS IN
 LIQUID FUELS
 03/24/1999 - 01/11/2003 FY99: \$75,000 Total: \$75,000
Prin. Invest.: D E ROSNER
Tech. Officer: GRC/K SACKSTEDER
CASE Category: 49 - ENGINEERING, OTHER

NGT 3 52347 **YALE UNIVERSITY** **3452**
 RHEOLOGY AND STATISTICAL MICROSTRUCTURE OF CONCENT RATED
 EMULSIONS AND FOAMS
 08/11/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: M LOEWENBERG, NONE
Tech. Officer: GRC/F MONTEGANI
CASE Category: 43 - CHEMICAL ENGR

NGT 5 30046 **YALE UNIVERSITY** **3453**
 THIRD YEAR FUNDING: *CHARACTERIZING LINKAGES BETW CRYPTOSPO-
 RIDIUM AND LAND USE USING REMOTE SENSING
 09/04/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: P K BARTEN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50042 **YALE UNIVERSITY** **3454**
 TERAHERTZ SUPERCONDUCTING HETERODYNE RECEIVERS
 08/04/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: PROBER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50067 **YALE UNIVERSITY** **3455**
 SPACE BASED LASER-COOLED ATOMIC CLOCKS
 08/26/1997 - 06/30/2000 FY99: \$21,460 Total: \$65,060
Prin. Invest.: K GIBBLE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50082 **YALE UNIVERSITY** **3456**
 SUPERCONDUCTING TUNNEL JUNCTION DETECTORS FOR SING IN VISIBLE
 AND ULTRAVIOLET ASTRONOMY
 09/05/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: DANIEL
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

DELAWARE

NAG 1 2030 **DELAWARE STATE UNIVERSITY** **3457**
 INVESTIGATION OF OPTICAL PHASE DISTORTIONS IN SOLID STATE
 PULSED LASER AMPLIFIER
 03/23/1998 - 12/31/2000 FY99: \$99,651 Total: \$197,687
Prin. Invest.: N MELIKECHI
Tech. Officer: LARC/W C EDWARDS, LARC/N P BANRES
CASE Category: 13 - PHYSICS

NAG 5 8240 **DELAWARE STATE UNIVERSITY** **3458**
 DELAWARE STATE UNIVERSITY CENTER FOR EXCELLENCE IN MATHEMAT-
 ICS, SCIENCE, AND TECHNOLOGY
 02/19/1999 - 02/29/2000 FY99: \$99,998 Total: \$99,998
Prin. Invest.: G OFOSU
Tech. Officer: GSFC/D MENCHAN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 1 1815 **UNIVERSITY OF DELAWARE** **3459**
 STEROSCOPIC PIV USING ANGULAR DISPLACEMENT FOR TURBULENCE
 MEASUREMENTS BEHIND A WING FLAP
 03/05/1998 - 03/05/1998 FY99: -\$1 Total: \$40,000
Prin. Invest.: A K PRASAD
Tech. Officer: LARC/K B PASCHAL, LARC/C S YAO
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1920 **UNIVERSITY OF DELAWARE** **3460**
 FREE-SURFACE AND CONTACT-LINE MOTION OF LIQUIDS IN A
 MICROGRAVITY ENVIRONMENT
 07/07/1996 - 07/10/2000 FY99: \$95,000 Total: \$308,000
Prin. Invest.: L W SCHWARTZ
Tech. Officer: GRC/M W WEISLOGEL
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1955 **UNIVERSITY OF DELAWARE** **3461**
 SURFACANT-BASED CRITICAL PHENOMENA IN MICROGRAVITY
 08/19/1996 - 08/31/2000 FY99: \$61,000 Total: \$197,500
Prin. Invest.: E W KALER, M E PAULATIS
Tech. Officer: GRC/B S SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 5 4829 **UNIVERSITY OF DELAWARE** **3462**
 AN INTEGRATED SYSTEM FOR WATER BUDGET CLOSURE OVER MASS: A
 TRMM VALIDATION EFFORT
 07/03/1997 - 06/30/2000 FY99: \$40,000 Total: \$120,000
Prin. Invest.: C J WILLMOTT
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5054 **UNIVERSITY OF DELAWARE** **3463**
 ACCELERATION OF COSMIC RAYS IN WIND-BLOWN STRUCTURES
 AROUND SUPERNOVAS
 03/27/1996 - 11/30/1999 FY99: \$0 Total: \$80,000
Prin. Invest.: T K GAISSER
Tech. Officer: GSFC/H C NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5181 **UNIVERSITY OF DELAWARE** **3464**
 PROTON/ANTI-PROTON RATIO AS A PROBE OF SOLAR MODULATION
 03/26/1998 - 02/28/2000 FY99: \$70,000 Total: \$138,604
Prin. Invest.: T K GAISSER
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5221 **UNIVERSITY OF DELAWARE** **3465**
 GRANT NAG5-5221 BALLOON AIR CHERENKOV (BACH) PI PROF PAUL
 EVENSON
 03/16/1999 - 03/11/2004 FY99: \$250,000 Total: \$250,000
Prin. Invest.: P A EVENSON
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6553 **UNIVERSITY OF DELAWARE** **3466**
 THE INFLUENCE OF COUPLING WITH THE IONOSPHERE AND
 ATMOSPHERE ON ROTATIONAL DYNAMICS IN THE JOVIAN MA
 10/17/1997 - 08/31/2000 FY99: \$51,992 Total: \$120,992
Prin. Invest.: D PONTIUS
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6619 **UNIVERSITY OF DELAWARE** **3467**
 CENTERS OF EXCELLENCE IN APPLICATION OF REMOTE SENSING TO
 REGIONAL AND GLOBAL INTEGRATED ENVIRONMENTS
 11/18/1997 - 11/14/1999 FY99: \$0 Total: \$150,018
Prin. Invest.: D KLEMAS
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

DELAWARE

NASA'S UNIVERSITY PROGRAM

NAG 5 6686 UNIVERSITY OF DELAWARE 3468
 THE CONNECTION BETWEEN HYDROGEN, THE INTERSTELLAR MEDIUM,
 AND THE DBV GD358
 11/25/1997 - 11/30/1998 FY99: \$0 Total: \$11,840
Prin. Invest.: J L PROVENCAL
Tech. Officer: GSFC/R J OLIVENSEN
CASE Category: 11 - ASTRONOMY

NAG 5 7009 UNIVERSITY OF DELAWARE 3469
 NATURE AND ORIGIN OF THE HIGHEST ENERGY COSMIC RAY S - ATP
 02/12/1998 - 02/14/2001 FY99: \$101,500 Total: \$197,400
Prin. Invest.: T STANOV
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7237 UNIVERSITY OF DELAWARE 3470
 DEUTERIUM IN THE SUN: COSMOLOGICAL IMPLICATIONS AND CONVEC-
 TION DYNAMICS
 04/08/1998 - 10/31/1999 FY99: \$0 Total: \$31,170
Prin. Invest.: D J MULLAN
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7949 UNIVERSITY OF DELAWARE 3471
 APPLICATION OF SATELLITE ALTIMETER DATA TO STUDIES OF OCEAN
 SURFACE HEATFLUX AND UPPER OCEAN THERMA
 12/23/1998 - 12/14/1999 FY99: \$70,000 Total: \$70,000
Prin. Invest.: X YAN
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8556 UNIVERSITY OF DELAWARE 3472
 A DATA COORDINATOR FOR CLIVAR AND G30S
 06/23/1999 - 06/30/2000 FY99: \$64,025 Total: \$64,025
Prin. Invest.: F WEBSTER
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8696 UNIVERSITY OF DELAWARE 3473
 OBSERVATIONAL STUDIES OF THE SOLAR CORONA
 08/17/1999 - 08/31/2000 FY99: \$21,336 Total: \$21,336
Prin. Invest.: D MULLAN
Tech. Officer: GSFC/J M DAVILA
CASE Category: 11 - ASTRONOMY

NAG 8 1242 UNIVERSITY OF DELAWARE 3474
 MOLECULARLY TAILORED SURFACES VIA SELF ASSEMBLY PROCESS
 04/25/1996 - 04/24/1998 FY99: \$0 Total: \$120,000
Prin. Invest.: M A BARTEALL
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1346 UNIVERSITY OF DELAWARE 3475
 PROTEIN CRYSTALLIZATION IN COMPLEX FLUIDS
 05/23/1997 - 11/30/2000 FY99: \$156,000 Total: \$379,000
Prin. Invest.: E W KALER, D
Tech. Officer: MSFC/D SMITH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1427 UNIVERSITY OF DELAWARE 3476
 DROPLETS OF 3HE-4HE MIXTURES
 02/11/1998 - 01/31/2003 FY99: \$74,000 Total: \$149,000
Prin. Invest.: S T CHUI
Tech. Officer: MSFC/J W POE
CASE Category: 13 - PHYSICS

NAG 9 989 UNIVERSITY OF DELAWARE 3477
 PROPOSAL TO DEVELOPE ASTRONAUT TRAINING
 02/08/1998 - 02/05/2000 FY99: \$0 Total: \$20,000
Prin. Invest.: V KLEMAS, Q ZHEN
Tech. Officer: JSC/S K RUNCO
CASE Category: 33 - OCEANOGRAPHY

NGT 5 40024 UNIVERSITY OF DELAWARE 3478
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGR
 12/19/1996 - 02/29/2000 FY99: \$256,250 Total: \$717,500
Prin. Invest.: N F NESS
Tech. Officer: HQ/J DASCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 1573 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3479
 PARTICLE ACCELERATION TRANSPORT AND TURBULENCE IN COSMIC AND
 HELIOSPHERIC PHYSICS
 04/22/1991 - 07/14/1998 FY99: \$0 Total: \$1,570,000
Prin. Invest.: W H MATTHAEUS
Tech. Officer: GSFC/T BIRMINGHAM
CASE Category: 13 - PHYSICS

NAG 5 2606 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3480
 COMPREHENSIVE SUPRATHERMAL AND ENERGETIC PARTICLE ANALYZER
 FOR THE SOLAR HELIOSPHERIC OBSERVATORY
 05/23/1994 - 12/31/1999 FY99: \$0 Total: \$600,000
Prin. Invest.: P EVENSEN
Tech. Officer: GSFC/A POLAND, GSFC
CASE Category: 11 - ASTRONOMY

NAG 5 2848 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3481
 PARTICIPATION IN NASA/GSFC MAGNETOMETER EXPERIMENT ON GGS
 SPACECRAFT WIND
 12/15/1994 - 12/31/1999 FY99: -\$20,000 Total: \$149,700
Prin. Invest.: N F NESS
Tech. Officer: GSFC/M ACUNA
CASE Category: 13 - PHYSICS

NAG 5 3026 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3482
 PEACE CO-INVESTIGATOR RESEARCH
 10/02/1995 - 01/14/1999 FY99: \$0 Total: \$122,000
Prin. Invest.: W MATTHAEUS
Tech. Officer: GSFC/M GOLDSTEIN
CASE Category: 13 - PHYSICS

NAG 5 3530 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3483
 MULTI-SPECTRAL DIAGNOSTICS AND DYNAMICAL MODELLING STAR
 WINDS
 12/13/1996 - 11/30/1999 FY99: \$95,200 Total: \$283,578
Prin. Invest.: S P OWOCKI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3538 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3484
 PARTICIPATION IN THE NASA GSFC MAGNETOMETER EXPERIMENT ON
 MARS GLOBAL SURVEYOR
 11/13/1996 - 12/31/1999 FY99: \$20,000 Total: \$45,000
Prin. Invest.: N NESS
Tech. Officer: GSFC/M ACUNA
CASE Category: 13 - PHYSICS

NAG 5 4065 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3485
 RADIATION HYDRODYNAMICS OF INTERACTING WINDS IN MA
 03/26/1997 - 03/31/2000 FY99: \$64,000 Total: \$192,000
Prin. Invest.: K GAYLEY
Tech. Officer: HQ/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4997 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3486
 TURBULENCE AND PARTICLE TRANSPORT IN SPACE PLASMAS
 07/23/1997 - 07/14/1998 FY99: \$0 Total: \$60,000
Prin. Invest.: D BIEBER, NONE
Tech. Officer: GSFC/M FORMAN
CASE Category: 11 - ASTRONOMY

NAG 5 5063 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3487
 BALLOON AIR CHERENKOV (BACH) MEASUREMENTS OF HIGH ENERGY
 COSMIC RAY COMPOSITION
 05/03/1996 - 10/31/1999 FY99: \$0 Total: \$737,000
Prin. Invest.: P EVENSON
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5106 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3488
 ORIGIN OF HIGH ENERGY GALACTIC COSMIC RAYS
 02/27/1997 - 11/30/1999 FY99: \$0 Total: \$65,000
Prin. Invest.: T STANEV
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 6061 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3489
 EXPERIMENTAL RESEARCH ON ANISOTROPY OF THE COSMIC BACK-
 GROUND RADIATION FROM A BALLOON-BORNE PLATFORM
 08/01/1997 - 06/30/2000 FY99: \$0 Total: \$100,000
Prin. Invest.: PICCIRILLO
Tech. Officer: GSFC/R SILVERBERG
CASE Category: 11 - ASTRONOMY

NAG 5 6469 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3490
 USING ULYSSES OBSERVATIONS TO CONSTRAIN GLOBAL MODELS OF
 THE HELIOSPHERE
 10/31/1997 - 10/31/1999 FY99: \$100,609 Total: \$196,404
Prin. Invest.: G ZANK
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6470 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3491
 ULYSSES-SWICS CONSTRAINTS ON NON-MAXWELLIAN ELECTRON DIS-
 TRIBUTIONS AND UNEQUAL ION FLOW SPEEDS IN A
 11/14/1997 - 10/31/1999 FY99: \$55,056 Total: \$107,463
Prin. Invest.: S OWOCKI
Tech. Officer: HQ/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6570 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3492
 INVESTIGATION OF INTERPLANETARY TURBULENCE AT HIGH LATITUDE
 USING THE ULYSSES SPACECRAFT
 11/13/1997 - 10/31/1999 FY99: \$82,699 Total: \$161,396
Prin. Invest.: C SMITH
Tech. Officer: HQ/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6905 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3493
 ORIGINS OF COOL STAR MASS LOSS: A UNIFIED AND EFFICIENT
 APPROACH TO ANALYZE FLUCTUATING WINDS
 02/09/1998 - 01/31/2000 FY99: \$0 Total: \$44,000
Prin. Invest.: D MULLAN
Tech. Officer: HQ/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6969 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3494
 ENERGETIC PARTICLE PROCESSES IN THE HELIOSPHERE
 03/12/1998 - 05/31/2001 FY99: \$131,168 Total: \$170,335
Prin. Invest.: J A LE ROUX
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 7142 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3495
 TURBULENCE AND PARTICLE TRANSPORT IN SPACE PLASMAS
 03/23/1998 - 02/28/2001 FY99: \$89,567 Total: \$148,700
Prin. Invest.: J BIEBER
Tech. Officer: HQ/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 7143 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3496
 HEATING OF CORONAL LOOPS: A TEST OF RESONANT ABSORPTION
 03/23/1998 - 10/14/1999 FY99: \$20,071 Total: \$43,792
Prin. Invest.: D MULLAN
Tech. Officer: HQ/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7164 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3497
 TURBULENCE, RECONNECTION, AND HEATING IN THE LOWER CORONA
 03/13/1998 - 04/14/2000 FY99: \$134,699 Total: \$183,287
Prin. Invest.: W H MATTHAEUS
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7545 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3498
 EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND
 REGIONS
 06/22/1998 - 06/30/2001 FY99: \$0 Total: \$110,144
Prin. Invest.: D LEATHERS, W SHUTTLEWORTH
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7585 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3499
 OBSERVATIONAL STUDIES OF THE SOLAR CORONA (UD PROPOSAL
 #99-2570-0004)
 08/27/1998 - 08/31/1999 FY99: \$0 Total: \$20,320
Prin. Invest.: D MULLAN
Tech. Officer: GSFC/J M DAVILLA
CASE Category: 11 - ASTRONOMY

DISTRICT OF COLUMBIA

NASA'S UNIVERSITY PROGRAM

NAG 5 7796 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3500
COMPOSITION AND ABUNDANCE RATIOS OF ANOMALOUS AND GALACTIC
COSMIC RAYS: IMPLICATIONS OF ACE OBSERVAT
12/14/1998 - 09/30/1999 FY99: \$76,000 Total: \$76,000
Prin. Invest.: G P ZANK
Tech. Officer: GSFC/D C LING
CASE Category: 11 - ASTRONOMY

NAG 5 8014 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3501
GROUND-LEVEL SOLAR COSMIC RAY DATA FROM SOLAR CYCLE 19
01/13/1999 - 12/31/1999 FY99: \$11,000 Total: \$11,000
Prin. Invest.: R PYLE
Tech. Officer: GSFC/J H BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 8134 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3502
RESEARCH IN "TURBULENCE AND TRANSPORT PROCESSES" THIS IS THE
FIRST YEAR OF A 3-YEAR FUNDING CYCLE.
02/04/1999 - 02/14/2000 FY99: \$106,504 Total: \$106,504
Prin. Invest.: W H MATTAEUS
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 8827 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3503
PARTICIPATION IN NASA-GSFC MAGNETOMETER EXPERIMENT ON MARS
GLOBAL SURVEYOR
09/07/1999 - 09/30/2000 FY99: \$28,836 Total: \$28,836
Prin. Invest.: N NESS
Tech. Officer: GSFC/M ACUNA
CASE Category: 13 - PHYSICS

NAGW 1637 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3504
TURBULENCE & PARTICLE TRANSPORT IN SPACE PLASMAS
01/19/1989 - 02/28/1998 FY99: \$0 Total: \$450,000
Prin. Invest.: N AVAILABLE
Tech. Officer: HQ/M MELLOTT
CASE Category: 13 - PHYSICS

NGT 5 50167 UNIV OF DELAWARE - BARTOL RESEARCH INSTITUTE 3505
PROTEIN CRYSTALLIZATION OF BINARY MIXTURES
07/08/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: A M LENHOFF/TESSIER
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

DISTRICT OF COLUMBIA

NGT 5 90078 GALLAUDET UNIVERSITY 3506
UNDERGRADUATE STUDENT RESEARCHERS PROGRAM (USRP)
10/06/1997 - 05/31/1999 FY99: \$0 Total: \$39,838
Prin. Invest.: G MCGAUGHAN
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1353 GEORGE WASHINGTON UNIVERSITY 3507
RESEARCH AND EDUCATION PROGRAM FOR NON-TRADITIONAL ENGI-
NEERING STUDENTS IN THE JIAFS
10/09/1991 - 11/30/1999 FY99: \$7,200 Total: \$537,387
Prin. Invest.: J L WHITESIDES
Tech. Officer: LARC/R L YANG, LARC/E J PRIOR
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 1972 GEORGE WASHINGTON UNIVERSITY 3508
A PROGRAM OF RESEARCH AND EDUCATION IN AERO-SPACE VEHICLE
DESIGN, SYNTHESIS, AND OPTIMIZATION.
10/31/1997 - 11/30/1999 FY99: \$211,777 Total: \$402,639
Prin. Invest.: R R SANDUSKY
Tech. Officer: LARC/C V ECKSTROM
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 697 GEORGE WASHINGTON UNIVERSITY 3509
MATHEMATICAL MODELING OF ENERGY MINIMIZING OFF-DESIGN SHAPES
OF LARGE SCIENTIFIC BALLOONS
01/25/1993 - 05/31/2000 FY99: \$0 Total: \$572,414
Prin. Invest.: F BAGINSKI
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/I S SMITH
CASE Category: 21 - MATHEMATICS

NAG 5 3957 GEORGE WASHINGTON UNIVERSITY 3510
ENVIRONMENTAL SECURITY, SUSTAINABLE DEVELOPMENT, A GLOBAL
OBSERVING STRATEGY
03/03/1997 - 12/31/1999 FY99: \$104,978 Total: \$346,764
Prin. Invest.: D WILLIAMSON
Tech. Officer: GSFC/J GASCH
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4294 GEORGE WASHINGTON UNIVERSITY 3511
FUNDING FOR UNSOLICITED PROPOSAL ENTITLED: "EFFECT VEGETATION
CANOPIES ON MICROWAVE REMOTE SENSING O
03/28/1997 - 03/31/1999 FY99: \$0 Total: \$91,704
Prin. Invest.: N CHAUHAN
Tech. Officer: GSFC/L L THOMPSON
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 4800 GEORGE WASHINGTON UNIVERSITY 3512
MEASUREMENT AND MODELING OF VEGETATIVE TERRAIN FOR RETRIEVAL
06/20/1997 - 04/30/1998 FY99: \$0 Total: \$23,000
Prin. Invest.: R LANG
Tech. Officer: GSFC/P E O'NEILL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5160 GEORGE WASHINGTON UNIVERSITY 3513
"LINEAGE ANALYSIS OF AXIS FORMATION UNDER NOVEL GR
07/18/1997 - 06/30/1998 FY99: \$0 Total: \$147,356
Prin. Invest.: S HUANG
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6081 GEORGE WASHINGTON UNIVERSITY 3514
STUDY OF VENUS NEUTRAL UPPER ATMOSPHERE USING MAGE
08/11/1997 - 11/30/1999 FY99: \$50,000 Total: \$100,000
Prin. Invest.: D KEATING
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6978 **GEORGE WASHINGTON UNIVERSITY** **3515**
 LIFE IN THE UNIVERSE: THE EMERGENCE OF ASTROBIOLOG Y
 04/09/1998 – 03/31/1999 FY99: \$0 Total: \$15,000
Prin. Invest.: J LOGSDON
Tech. Officer: GSFC/M MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 8068 **GEORGE WASHINGTON UNIVERSITY** **3516**
 IMPROVED NUMERICAL MODELING OF LOW-DENSITY ATMOSPHERIC FLOW ON IO
 01/29/1999 – 12/31/1999 FY99: \$14,365 Total: \$14,365
Prin. Invest.: D A LEVIN, NONE
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 – ASTRONOMY

NAG 5 8287 **GEORGE WASHINGTON UNIVERSITY** **3517**
 MARS GLOBAL SURVEYOR ACCELEROMETER EXPERIMENT: STUDY OF MARSTHERMOSPHERE AND COUPLING
 02/22/1999 – 03/31/2000 FY99: \$74,500 Total: \$74,500
Prin. Invest.: G M KEATING
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 8664 **GEORGE WASHINGTON UNIVERSITY** **3518**
 1ST YR FUNDING FOR 'COMPREHENSIVE STUDY ON CURRENT AND FUTURE APPLICATIONS OF REMOTE SENSING FOR NAT
 07/07/1999 – 06/30/2000 FY99: \$215,079 Total: \$215,079
Prin. Invest.: L S WALTER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 4516 **GEORGE WASHINGTON UNIVERSITY** **3519**
 LINEAGE ANALYSIS OF AXIS FORMATION UNDER NOVEL GRAVITY
 05/13/1995 – 09/30/1997 FY99: -\$3,700 Total: \$278,784
Prin. Invest.: S HUANG
Tech. Officer: HQ/T K SCOTT
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 4646 **GEORGE WASHINGTON UNIVERSITY** **3520**
 RESEARCH INTO ECONOMIC METHODOLOGY AND MODELS FOR ASSESSING IMPACTS OF NASA LIFE SCIENCE RESEARCH
 07/28/1995 – 09/30/1998 FY99: -\$1,877 Total: \$147,273
Prin. Invest.: H R HERTZFELD
Tech. Officer: HQ/V R THORNE
CASE Category: 59 – LIFE SCIENCE, OTHER

NCC 1 14 **GEORGE WASHINGTON UNIVERSITY** **3521**
 AERACOUSTICS RESEARCH PROGRAM IN JIAFS
 05/16/1979 – 10/31/1999 FY99: \$171,925 Total: \$3,623,941
Prin. Invest.: H LIEBOWITZ, M K MYERS
Tech. Officer: LARC/L R CLARK, LARC/D G STEPHENS
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 24 **GEORGE WASHINGTON UNIVERSITY** **3522**
 PROGRAMS OF RESEARCH IN FLIGHT SCIENCES
 08/08/1979 – 11/30/1999 FY99: \$280,755 Total: \$3,833,066
Prin. Invest.: H LIEBOWITZ, J L WHITESIDES
Tech. Officer: LARC/R T BRIGHT
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 29 **GEORGE WASHINGTON UNIVERSITY** **3523**
 RESEARCH PROGRAM IN FLIGHT DYNAMICS IN THE JIAFS AT THE NASA LANGLEY RESEARCH CENTER
 11/16/1979 – 11/30/1998 FY99: \$47,611 Total: \$2,786,882
Prin. Invest.: H LIEBOWITZ
Tech. Officer: LARC/P C MURPHY, LARC/P C MURPHY
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 47 **GEORGE WASHINGTON UNIVERSITY** **3524**
 CORE PROGRAM IN THE JOINT INSTITUTE FOR ADVANCEMENT OF FLIGHT SCIENCES AT THE NASA-LANGLEY RESEARCH
 11/05/1980 – 10/31/1999 FY99: \$120,000 Total: \$5,329,012
Prin. Invest.: J L WHITESIDES, H W LIEBOWITZ
Tech. Officer: LARC/R L YANG, LARC/M F CARD
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 104 **GEORGE WASHINGTON UNIVERSITY** **3525**
 A PROGRAM OF RESEARCH & EDUCATION IN ASTRONAUTICS IN JIAFS
 04/30/1986 – 08/31/1999 FY99: \$39,939 Total: \$2,174,582
Prin. Invest.: R H TOLSON
Tech. Officer: LARC/L F ROWELL
CASE Category: 42 – ASTRONAUTICAL ENGR

NCC 1 208 **GEORGE WASHINGTON UNIVERSITY** **3526**
 PROGRAM OF RESEARCH AND EDUCATION IN AEROSPACE STRUCTURES
 12/20/1994 – 08/31/1999 FY99: \$0 Total: \$531,037
Prin. Invest.: R H TOLSON
Tech. Officer: LARC/E C WYNNE
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 217 **GEORGE WASHINGTON UNIVERSITY** **3527**
 EXPERIMENTS IN THE THERMAL AND FLUID SCIENCES IN THE JOINT INSTITUTE FOR ADVANCEMENT OF FLIGHT
 09/11/1995 – 11/30/1999 FY99: \$154,111 Total: \$549,452
Prin. Invest.: A D CUTLER
Prin. Invest.: NONE
Tech. Officer: LARC/G S DISKIN, LARC/M W SMITH
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 326 **GEORGE WASHINGTON UNIVERSITY** **3528**
 A PROGRAM OF RESEARCH IN FLIGHT DYNAMICS IN JIAFS
 01/27/1999 – 11/30/1999 FY99: \$138,239 Total: \$138,239
Prin. Invest.: V KLEIN
Tech. Officer: LARC/J G BATTERSON
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 331 **GEORGE WASHINGTON UNIVERSITY** **3529**
 A COOPERATIVE PROGRAM OF RESEARCH & EDUCATION IN AEROSPACE VEHICLE MECHANICS AT JIAFS
 03/22/1999 – 11/30/1999 FY99: \$257,825 Total: \$257,825
Prin. Invest.: R H TOLSON
Tech. Officer: LARC/R W BUCHANAN
CASE Category: 42 – ASTRONAUTICAL ENGR

NCC 3 613 **GEORGE WASHINGTON UNIVERSITY** **3530**
 SATELLITE COMMUNICATIONS NETWORKS AND INTEROPERABILITY RESEARCH
 04/29/1998 – 05/03/1999 FY99: \$32,827 Total: \$199,827
Prin. Invest.: B I EDELSON, H J HELGERT, N R HELM
Tech. Officer: GRC/S W MAINGER, GRC/K B BHASIN
CASE Category: 49 – ENGINEERING, OTHER

NCC 5 51 **GEORGE WASHINGTON UNIVERSITY** **3531**
 PROGRAM FOR RESEARCH AND EDUCATION IN SPACE TECHNOLOGY
 12/14/1992 - 09/30/1999 FY99: \$68,466 Total: \$2,847,087
Prin. Invest.: G FRIEDER, N BEDEWI
Tech. Officer: GSFC/T E HUBER, GSFC/J R ROBINSON
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 5 53 **GEORGE WASHINGTON UNIVERSITY** **3532**
 DISTRIBUTION AND STRUCTURE OF BIOMASS IN BOREAL FOREST ECOSYSTEMS
 06/17/1993 - 12/31/1998 FY99: \$0 Total: \$171,351
Prin. Invest.: R LANG
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 40056 **GEORGE WASHINGTON UNIVERSITY** **3533**
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 03/01/1995 - 02/28/2000 FY99: -\$27,260 Total: \$313,740
Prin. Invest.: J M LOGSDON
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 2 52223 **GEORGE WASHINGTON UNIVERSITY** **3534**
 SCIENCE & ENGINEERING APPRENTICE PROGRAM
 06/05/1997 - 05/14/2000 FY99: \$22,000 Total: \$72,519
Prin. Invest.: M KRUPSAW
Tech. Officer: ARC/J G GRIGGS, ARC/T WILSON
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 5 30 **GEORGE WASHINGTON UNIVERSITY** **3535**
 IMAGE RESTORATION AND NOISE REMOVAL IN HOLOGRAPHIC DATA
 07/15/1996 - 08/14/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: M H LOEW
Tech. Officer: GSFC/G A SOFFEN, GSFC/J DORLAND
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 40058 **GEORGE WASHINGTON UNIVERSITY** **3536**
 THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 02/14/1997 - 02/28/2000 FY99: \$212,500 Total: \$595,000
Prin. Invest.: J M LOGSDON
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6343 **GEORGETOWN UNIVERSITY** **3537**
 3D ORAM DOSIMETER FOR SPACE RADIATION ENVIRONMENT
 09/19/1997 - 09/30/1999 FY99: \$0 Total: \$82,406
Prin. Invest.: D MOSCOVITCH
Tech. Officer: GSFC/A SCHIMMERLING
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6356 **GEORGETOWN UNIVERSITY** **3538**
 HUMAN ENZYMIC REPAIR OF RADIATION-INDUCED DNA DAMAGE
 09/29/1997 - 02/14/1999 FY99: -\$24,868 Total: \$140,756
Prin. Invest.: T JORGENSEN
Tech. Officer: GSFC/B SIEGEL
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1058 **GEORGETOWN UNIVERSITY** **3539**
 CALCIUM KINETIC DURING SPACE FLIGHT
 12/16/1998 - 12/31/1999 FY99: \$25,890 Total: \$25,890
Prin. Invest.: E WASTNEY
Tech. Officer: JSC/S M SMITH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 4395 **GEORGETOWN UNIVERSITY** **3540**
 3D ORAM DOSIMETER FOR SPACE RADIATION ENVIRONMENTS
 04/19/1995 - 09/13/1998 FY99: -\$5,542 Total: \$199,857
Prin. Invest.: M MOSCOVITCH
Tech. Officer: HQ/F M SULZMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 30043 **GEORGETOWN UNIVERSITY** **3541**
 SURFACE CHEMISTRY OF POLAR STRATOSPHERIC CLOUD PARTICLES
 12/30/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: J M HICKS
Tech. Officer: GSFC/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2015 **HOWARD UNIVERSITY** **3542**
 INVESTIGATION OF THE RELATIONSHIP OF VORTEX GENERATED SOUND AND AIRFRAME
 03/03/1998 - 10/31/1998 FY99: \$0 Total: \$20,000
Prin. Invest.: A R PRITCHETT
Tech. Officer: LARC/M MACARAEG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2019 **HOWARD UNIVERSITY** **3543**
 STRUCTURE-FUNCTION RELATIONSHIPS OF IMPACT-MODIFIED CYANATE ESTER RESINS
 03/13/1998 - 03/15/2001 FY99: \$100,000 Total: \$200,000
Prin. Invest.: W E COLLINS, NONE
Tech. Officer: LARC/H L BELVIN, LARC/J W CONNELL
CASE Category: 43 - CHEMICAL ENGR

NAG 1 2124 **HOWARD UNIVERSITY** **3544**
 INVESTIGATION OF WAKE-VORTEX/AIRCRAFT ENCOUNTERS
 12/14/1998 - 12/31/1999 FY99: \$16,154 Total: \$16,154
Prin. Invest.: S T SMITH, C ROBERTS, K PETE
Tech. Officer: LARC/D D VICROY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2148 **HOWARD UNIVERSITY** **3545**
 CONTRIBUTION OF FLAP-SIDE EDGE VORTEX BURSTING TO AIRFRAME NOISE (NRA 98-LARC-5)
 02/05/1999 - 11/04/2001 FY99: \$76,254 Total: \$76,254
Prin. Invest.: S T SMITH
Tech. Officer: LARC/R R ANTOLIFF
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1677 **HOWARD UNIVERSITY** **3546**
 FREE RADICAL SPECTROSCOPY AND KINETICS IN MICROGRAVITY COMBUSTION
 10/15/1994 - 10/14/1999 FY99: -\$6,596 Total: \$355,675
Prin. Invest.: P MISRA
Tech. Officer: GRC/N D PILTCH
CASE Category: 13 - PHYSICS

NAG 3 1907 **HOWARD UNIVERSITY** **3547**
 DETERMINATION OF THERMAL STATE OF CHARGE IN SOLAR HEAT RECEIVERS
 05/21/1996 - 08/21/1998 FY99: -\$1,902 Total: \$198,098
Prin. Invest.: E K GLAPKE
Tech. Officer: GRC/T KERSLAKE
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1931 **HOWARD UNIVERSITY** **3548**
 ADVANCED INTELLIGENT SYSTEM APPLICATION TO LOAD FOR RECASTING & CONTROL FOR HYBRID ELECTRIC BUS
 07/24/1996 - 05/22/1999 FY99: \$0 Total: \$189,000
Prin. Invest.: J A MOMOH
Tech. Officer: GRC/L VITERNA
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1978 **HOWARD UNIVERSITY** **3549**
 AEROSPACE POWER SYSTEM AUTOMATION
 10/25/1996 - 05/30/2000 FY99: \$100,000 Total: \$300,000
Prin. Invest.: J A MOMOH
Tech. Officer: GRC/J L DOLCE
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2030 **HOWARD UNIVERSITY** **3550**
 EXPERIMENTAL IMPLEMENTATION OF HIGH PERFORMANCE AC DRIVES USING NERL DESIGNS
 04/04/1997 - 03/31/2000 FY99: \$0 Total: \$140,000
Prin. Invest.: A RUBARI
Tech. Officer: GRC/D F NOGA, GRC/D M KAW KAM
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2287 **HOWARD UNIVERSITY** **3551**
 EXPERIMENTAL VERIFICATION OF ELECTRIC DRIVE TECHNOLOGIES BASED ON ARTIFICIAL INTELLIGENCE TOOLS
 08/23/1999 - 06/01/2001 FY99: \$38,000 Total: \$38,000
Prin. Invest.: D RUBAAI
Tech. Officer: GRC/D F NOGA
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 1017 **HOWARD UNIVERSITY** **3552**
 SUPERCONDUCTING MATERIALS FOR SPACE APPLICATIONS
 10/15/1987 - 02/14/1998 FY99: \$0 Total: \$1,459,000
Prin. Invest.: A N THORPE, H HOJAJI, A BARKATT
Tech. Officer: GSFC/S R BREON, GSFC/M D JHABVALA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3141 **HOWARD UNIVERSITY** **3553**
 CHARACTERIZATION, EVALUATION AND FABRICATION OF HIGH TEMPERATURE SUPERCONDUCTING MATERIALS FOR ...
 11/03/1995 - 11/14/1998 FY99: \$0 Total: \$426,000
Prin. Invest.: A N THORPE
Tech. Officer: GSFC/M DIPIRRO
CASE Category: 11 - ASTRONOMY

NAG 5 4764 **HOWARD UNIVERSITY** **3554**
 LABORATORY STUDIES OF THE PHOTOCHEMISTRY OF ACETYL TITAN'S ATMOSPHERE
 06/13/1997 - 02/29/2000 FY99: \$0 Total: \$45,000
Prin. Invest.: D OKABE
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6066 **HOWARD UNIVERSITY** **3555**
 THE DEVELOPMENT OF A NEW GENERATION TRAPPED RADIAT
 07/28/1997 - 07/31/2000 FY99: \$165,660 Total: \$290,959
Prin. Invest.: R BOURGIN
Tech. Officer: GSFC/S FUNG
CASE Category: 21 - MATHEMATICS

NAG 5 6825 **HOWARD UNIVERSITY** **3556**
 PHOTOCHEMISTRY OF ACETYLENES RELEVANT TO TITAN'S ATMOSPHERE
 01/12/1998 - 12/31/1999 FY99: \$0 Total: \$45,000
Prin. Invest.: H OKABE
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 6835 **HOWARD UNIVERSITY** **3557**
 LABORATORY STUDIES OF NITRILES IN TITAN'S ATMOSPHERE: CYANOACETYLENES AND C₃N
 01/07/1998 - 12/31/1999 FY99: \$64,350 Total: \$128,750
Prin. Invest.: J HALPERN
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7384 **HOWARD UNIVERSITY** **3558**
 PUBLIC SERVICE INTERN PROGRAM
 05/13/1998 - 05/14/2000 FY99: \$89,600 Total: \$161,300
Prin. Invest.: D WOODARD
Tech. Officer: GSFC/D MENCHAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7670 **HOWARD UNIVERSITY** **3559**
 THIS EFFORT FOCUSES ON THE KNOWLEDGE ACQUISITION PROCESSES FOR SOFTWARE ENGINEERING BASELINING AND
 09/28/1998 - 07/30/1999 FY99: \$0 Total: \$18,131
Prin. Invest.: J TRIMBLE
Tech. Officer: GSFC/H E KEA
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 8790 **HOWARD UNIVERSITY** **3560**
 QUALITY SOFTWARE: KNOWLEDGE ACQUISITION IN SOFTWARE ENGINEERING RESEARCH
 08/31/1999 - 08/31/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: J TRIMBLE
Tech. Officer: GSFC/W TRUSZKOWSKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 9 977 **HOWARD UNIVERSITY** **3561**
 CAFFEINE METBOLISM-THE PHARMACOKINETICS OF SPACE FLIGHT
 09/30/1997 - 12/31/1999 FY99: \$167,822 Total: \$394,052
Prin. Invest.: M W COOMES
Tech. Officer: JSC/L PUTCHA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 785 **HOWARD UNIVERSITY** **3562**
 PHOTOCHEMISTRY OF ACETYLENES - LAB STUDIES
 08/01/1985 - 06/30/1998 FY99: \$0 Total: \$604,072
Prin. Invest.: H OKABE
Tech. Officer: HQ/J T BERGSTRAHL, HQ/W L QUAIDE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 3 571 **HOWARD UNIVERSITY** **3563**
 EXPERIMENTAL EVALUATION OF MOTOR DRIVE TECHNOLOGIES FOR
 FUTURE AEROSPACE APPLICATIONS
 08/01/1997 - 07/31/2000 FY99: \$0 Total: \$312,543
Prin. Invest.: A RUBAAL, M E ELBULUK
Tech. Officer: GRC/M D KANKAM
CASE Category: 45 - ELECTRICAL ENGR

NCC 5 184 **HOWARD UNIVERSITY** **3564**
 TERRESTRIAL AND EXTRATERRESTRIAL ATMOSPHERES
 03/12/1997 - 02/29/2000 FY99: \$999,757 Total: \$2,998,745
Prin. Invest.: A N THORPE
Tech. Officer: GSFC/G A SOFFEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 192 **HOWARD UNIVERSITY** **3565**
 A CHANGE MANAGEMENT INTERVENTION IN THE MUSPIN PRO
 05/15/1997 - 05/14/1998 FY99: \$0 Total: \$55,000
Prin. Invest.: E DORSEY
Tech. Officer: GSFC/J HARRINGTON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 197 **HOWARD UNIVERSITY** **3566**
 CSTE A HBCU ACADEMIC AND RESEARCH CONSORTIUM (CHARC)
 05/22/1997 - 05/31/2000 FY99: \$550,000 Total: \$2,200,000
Prin. Invest.: A N THORPE
Tech. Officer: GSFC/W R HOEGY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 387 **HOWARD UNIVERSITY** **3567**
 CENTER FOR THE STUDY OF TERRESTRIAL AND EXTRATERRESTRIAL
 ATMOSPHERES(CSTE A)
 04/16/1999 - 04/30/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: S T SMITH
Tech. Officer: GSFC/W R HOEGY
CASE Category: 13 - PHYSICS

NCC 5 420 **HOWARD UNIVERSITY** **3568**
 CSTE A-HBCU ACADEMIC AND RESEARCH CONSORTIUM (CHARC)
 08/30/1999 - 08/31/2000 FY99: \$550,000 Total: \$550,000
Prin. Invest.: A THORPE
Tech. Officer: GSFC/W HOEGY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 424 **HOWARD UNIVERSITY** **3569**
 GSFC/HU FELLOWSHIP IN ATMOSPHERIC SCIENCE (GOHFAS)
 08/27/1999 - 08/31/2000 FY99: \$75,000 Total: \$75,000
Prin. Invest.: S T SMITH
Tech. Officer: GSFC/W HOEGY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 8 184 **HOWARD UNIVERSITY** **3570**
 IMPORT OF IMPAIRED POLYADP-RIBOSYLATION AND FREE RADICAL
 STRESS IN ATAXIA-TELANGEICTASIA
 09/01/1999 - 08/31/2001 FY99: \$99,349 Total: \$99,349
Prin. Invest.: R SRIDHAR
Tech. Officer: MSFC/R SRIDHAR
CASE Category: 56 - MEDICAL

NGT 40024 **HOWARD UNIVERSITY** **3571**
 NGT-40024/HOWARD UNIV/NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 05/29/1991 - 02/29/2000 FY99: \$0 Total: \$707,450
Prin. Invest.: J B HALPERN
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 37 **HOWARD UNIVERSITY** **3572**
 1997 ASEE - NASA SUMMER FACULTY FELLOWSHIP PROGRAM
 04/01/1997 - 12/31/1999 FY99: \$0 Total: \$458,734
Prin. Invest.: J B HALPERN
Tech. Officer: GSFC/G SOFFEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 55 **HOWARD UNIVERSITY** **3573**
 THE INFLUENCE OF SEA SURFACE TEMPERATURE ON THE ON JULIAN
 OSCILLATION WITHIN AN AQUAPLANET MODEL
 07/25/1997 - 06/30/1999 FY99: \$0 Total: \$33,000
Prin. Invest.: J LINDESAY
Tech. Officer: GSFC/M SUAREZ
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 77 **HOWARD UNIVERSITY** **3574**
 SUPPORT OF THE 1999 ASEE-NASA SUMMER FACULTY FELLOWSHIP PROGRAM(AERONAUTICS AND SPACE RESEARCH)
 03/25/1999 - 03/31/2000 FY99: \$431,500 Total: \$431,500
Prin. Invest.: J B HALPERN
Tech. Officer: GSFC/M S BURRELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 175 **THE AMERICAN UNIVERSITY** **3575**
 AN INVESTIGATION OF THE FORMATION GROWTH AND STRUCTURE OF
 ASTROPHYSICAL SILICATE DUST BY
 12/09/1996 - 11/30/1998 FY99: -\$95 Total: \$29,905
Prin. Invest.: N ROSCHER
Tech. Officer: GSFC/J NUTH
CASE Category: 11 - ASTRONOMY

NCC 5 269 **THE AMERICAN UNIVERSITY** **3576**
 DEVELOPMENT OF STATE OF THE ART SOLID STATE LASERS FOR ALTIMETRY AND OTHER LIDAR APPLICATIONS
 02/11/1998 - 02/14/2000 FY99: \$222,102 Total: \$473,454
Prin. Invest.: R B KAY
Tech. Officer: GSFC/J L BUFTON
CASE Category: 13 - PHYSICS

NGT 5 79 **THE AMERICAN UNIVERSITY** **3577**
 YEAR 1 OF GSRP GRANT FOR MR. SAMUEL GOMPERS OF THE AMERICAN UNIVERSITY IN SUPPORT OF MICROLASER DEVELOPMENT
 05/04/1999 - 08/31/2000 FY99: \$44,000 Total: \$44,000
Prin. Invest.: J J DEGNAN
Prin. Invest.: NONE
Tech. Officer: GSFC/G SOFFEN
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 50003 **THE AMERICAN UNIVERSITY** **3578**
 DEVELOPMENT OF ND: YAG PASSIVELY Q SWITCHED MICROLASER FOR USE IN THE SATELLITE LASER RANGING 2000.
 09/09/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: R B KAY
Tech. Officer: GSFC/G A SOFFEN, GSFC/J DEGNAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 1 1296 THE CATHOLIC UNIVERSITY OF AMERICA 3579
 AUTOMATION AND OPERATOR "COMPLACENCY" IN MONITORING
 06/21/1991 - 04/30/1998 FY99: \$0 Total: \$772,229
Prin. Invest.: R PARASURAMAN
Tech. Officer: LARC/A T POPE, LARC/J R COMSTOCK
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 1 2103 THE CATHOLIC UNIVERSITY OF AMERICA 3580
 COCKPIT ADAPTIVE AUTOMATION AND PILOT PERFORMANCE
 08/26/1998 - 07/31/2000 FY99: \$106,651 Total: \$127,651
Prin. Invest.: R PARASURAMAN
Tech. Officer: LARC/A T POPE
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 2 1096 THE CATHOLIC UNIVERSITY OF AMERICA 3581
 DYNAMIC AUTOMATION TOOLS FOR AIR TRAFFIC MANAGEMENT
 12/09/1996 - 02/28/1999 FY99: \$315,000 Total: \$949,739
Prin. Invest.: R PARASURAMAN
Tech. Officer: ARC/W JOHNSON, ARC/M R ROSEKEND
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 5 780 THE CATHOLIC UNIVERSITY OF AMERICA 3582
 ACTIVE CONTROL OF ROBOT MANIPULATOR COMPLIANCE
 05/15/1986 - 09/30/1999 FY99: \$40,044 Total: \$558,470
Prin. Invest.: C C NGUYEN
Tech. Officer: GSFC/L PURVES
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 1413 THE CATHOLIC UNIVERSITY OF AMERICA 3583
 OBSERVATIONS OBTAINED W/ GODDARD HIGH RESOLUTION
 08/02/1990 - 09/30/1999 FY99: \$0 Total: \$281,006
Prin. Invest.: F C BRUHWEILER, C A GRADY
Tech. Officer: GSFC/A SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 1414 THE CATHOLIC UNIVERSITY OF AMERICA 3584
 TIME-DEPENDENT MODEL TO CALCULATE TONIC & MOLECULAR
 08/02/1990 - 09/30/1999 FY99: \$0 Total: \$327,210
Prin. Invest.: C H LYU, F C BRUHWEILER
Tech. Officer: GSFC/A M SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 2284 THE CATHOLIC UNIVERSITY OF AMERICA 3585
 MORPHOLOGY OF LOCAL H I VOID AND THE IONIZATION OF HELIUM IN
 THE LISM AND GALACTIC HALO
 06/11/1993 - 06/14/2000 FY99: \$0 Total: \$351,892
Prin. Invest.: F C BRUHWEILER
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 2814 THE CATHOLIC UNIVERSITY OF AMERICA 3586
 RESEARCH SUPPORT OF WIND MAGNETIC FIELD INSTRUMENT (MFI)
 12/12/1994 - 09/14/1998 FY99: \$0 Total: \$251,700
Prin. Invest.: Y C WHANG
Tech. Officer: GSFC/R P LEPPING
CASE Category: 13 - PHYSICS

NAG 5 2881 THE CATHOLIC UNIVERSITY OF AMERICA 3587
 INVESTIGATION OF CORONAL LARGE SCALE STRUCTURE USING SPAR-
 TAN 201 DATA
 01/30/1995 - 02/14/1998 FY99: -\$3,428 Total: \$335,769
Prin. Invest.: M GUHATHAKURTA
Tech. Officer: GSFC/R R FISHER
CASE Category: 11 - ASTRONOMY

NAG 5 3037 THE CATHOLIC UNIVERSITY OF AMERICA 3588
 A STUDY TO DETERMINE THE EFFECTS OF SPACE EXPLORATION ON
 THE FUTURE AND DIRECTION OF HUMAN CIVILIZATION
 07/31/1995 - 09/30/1999 FY99: \$0 Total: \$25,000
Prin. Invest.: F C BRUHWEILER
Tech. Officer: GSFC/Y KONDO
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3378 THE CATHOLIC UNIVERSITY OF AMERICA 3589
 OBSERVATIONS AND ANALYSIS OF DATA OBTAINED BY THE SPACE TELE-
 SCOPE IMAGING SPECTROGRAPH
 08/28/1996 - 09/30/2000 FY99: \$153,050 Total: \$453,665
Prin. Invest.: A BOGESS
Tech. Officer: GSFC/T GULL
CASE Category: 11 - ASTRONOMY

NAG 5 3487 THE CATHOLIC UNIVERSITY OF AMERICA 3590
 MEASURING BORON ABUNDANCES WITH IUE SPECTRA USING LINES
 11/25/1996 - 11/14/1999 FY99: \$0 Total: \$31,905
Prin. Invest.: F C BRUHWEILER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4103 THE CATHOLIC UNIVERSITY OF AMERICA 3591
 OBSERVATIONS AND ANALYSIS OF SEYFERT GALAXIES WITH THE SPACE
 TELESCOPE IMAGING SPECTROGRAPH
 03/31/1997 - 08/31/2000 FY99: \$215,598 Total: \$643,799
Prin. Invest.: S KRAEMER
Tech. Officer: GSFC/T GULL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4345 THE CATHOLIC UNIVERSITY OF AMERICA 3592
 EXPERIMENTAL STUDIES OF INGENOUS PROCESSES IN ENST
 04/09/1997 - 09/30/1999 FY99: \$0 Total: \$150,000
Prin. Invest.: D DICKINSON
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4362 THE CATHOLIC UNIVERSITY OF AMERICA 3593
 SPATIAL-SPECTRAL MAPPING OF CO EMISSION IN COMETS HALE-BOPP,
 AND COMPARISON WITH OTHER ORGANICS
 04/21/1997 - 03/31/1999 FY99: \$12,832 Total: \$95,366
Prin. Invest.: D DISANTI
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4418 THE CATHOLIC UNIVERSITY OF AMERICA 3594
 STUDIES OF LONG-PERIOD VARIABILITY IN NEUTRON-STAR
 05/02/1997 - 04/30/1998 FY99: -\$8,332 Total: \$0
Prin. Invest.: F LANG
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4940 THE CATHOLIC UNIVERSITY OF AMERICA 3595
 INTERPRETIVE TOOLS FOR ANALYSIS OF CORONAL IMAGES
 06/23/1997 - 09/30/1999 FY99: \$35,992 Total: \$127,200
 Prin. Invest.: D GUHATHAKURTA
 Tech. Officer: GSFC/W J WAGNER
 CASE Category: 13 - PHYSICS

NAG 5 6026 THE CATHOLIC UNIVERSITY OF AMERICA 3596
 DEVELOPMENT OF VERY LIGHT WEIGHT ACTIVE OPTICS
 09/04/1997 - 09/14/2000 FY99: \$11,510 Total: \$37,950
 Prin. Invest.: F BRUHWEILER
 Tech. Officer: GSFC/C BOWERS
 CASE Category: 11 - ASTRONOMY

NAG 5 6139 THE CATHOLIC UNIVERSITY OF AMERICA 3597
 NEAR-SURFACE MANIFESTATIONS OF GEO-EFFECTIVE SOLAR
 09/08/1997 - 09/14/2000 FY99: \$65,950 Total: \$198,827
 Prin. Invest.: D GOPALSWAMY
 Tech. Officer: GSFC/W J WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 6239 THE CATHOLIC UNIVERSITY OF AMERICA 3598
 A STUDY OF PHYSICAL PROCESSES IN THE ATMOSPHERE OF
 09/08/1997 - 09/30/2000 FY99: \$29,195 Total: \$204,554
 Prin. Invest.: R D ROBINSON
 Tech. Officer: GSFC/K G CARPENTER
 CASE Category: 11 - ASTRONOMY

NAG 5 6260 THE CATHOLIC UNIVERSITY OF AMERICA 3599
 INTERPRETATION OF WHITE LIGHT CORONOGRAPH DAD MODEL
 08/19/1997 - 06/30/1998 FY99: \$0 Total: \$47,700
 Prin. Invest.: D GUHATHAKURTA
 Tech. Officer: GSFC/W J WAGNER
 CASE Category: 13 - PHYSICS

NAG 5 6674 THE CATHOLIC UNIVERSITY OF AMERICA 3600
 THE NATURE AND ORIGIN OF THE HGMN PHENOMENA
 11/21/1997 - 05/31/2000 FY99: \$0 Total: \$90,000
 Prin. Invest.: F BRUHWEILER
 Tech. Officer: GSFC/D LECKRONE
 CASE Category: 11 - ASTRONOMY

NAG 5 6733 THE CATHOLIC UNIVERSITY OF AMERICA 3601
 X-RAY CORRELATED VARIATIONS IN X PER
 12/16/1997 - 12/31/1999 FY99: \$0 Total: \$35,000
 Prin. Invest.: M SMITH
 Tech. Officer: GSFC/R POLIDAN
 CASE Category: 11 - ASTRONOMY

NAG 5 7078 THE CATHOLIC UNIVERSITY OF AMERICA 3602
 MAPPING OF HIGH-ALTITUDE OZONE IN THE ATMOSPHERE OF MARS
 02/25/1998 - 02/29/2000 FY99: \$59,900 Total: \$96,433
 Prin. Invest.: V A KRASNOPOLSKY
 Tech. Officer: GSFC/T MORGAN
 CASE Category: 11 - ASTRONOMY

NAG 5 7130 THE CATHOLIC UNIVERSITY OF AMERICA 3603
 TESTING AND IMPLEMENTATION OF A ROBUST ALGORITHM FOR GPS
 ATTITUDE DETERMINATION
 03/03/1998 - 02/28/1999 FY99: \$1,118 Total: \$15,589
 Prin. Invest.: D CRASSIDIS
 Tech. Officer: GSFC/G LIGHTSEY
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 7132 THE CATHOLIC UNIVERSITY OF AMERICA 3604
 STUDIES OF THE DISTRIBUTION OF AEROSOLS AND THEIR EFFECT ON
 MARTIAN ATMOSPHERIC DYNAMICS USING M
 03/06/1998 - 02/28/2000 FY99: \$0 Total: \$59,700
 Prin. Invest.: D D SMITH
 Tech. Officer: GSFC/J PEARL
 CASE Category: 11 - ASTRONOMY

NAG 5 7238 THE CATHOLIC UNIVERSITY OF AMERICA 3605
 A STUDY OF THE COOLER SOLAR PLASMAS USING MICROWAVE DATA IN
 CONJUNCTION WITH SOHO OBSERVATIONS
 04/08/1998 - 10/31/1999 FY99: \$0 Total: \$59,400
 Prin. Invest.: N GOPALSWAMY
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 7412 THE CATHOLIC UNIVERSITY OF AMERICA 3606
 INVESTIGATION OF CORONAL LARGE SCALE STRUCTURE UTILIZING
 SPARTAN 201 DATA
 06/02/1998 - 02/14/1999 FY99: \$0 Total: \$52,688
 Prin. Invest.: M GUHATHAKURTA
 Tech. Officer: GSFC/R R FISHER
 CASE Category: 11 - ASTRONOMY

NAG 5 7413 THE CATHOLIC UNIVERSITY OF AMERICA 3607
 INVESTIGATION OF THE SOLAR CORONA WITH THE SPARTAN 201 WHITE-
 LIGHT CORONOGRAPH SYSTEM
 06/05/1998 - 05/14/2000 FY99: \$3,800 Total: \$74,528
 Prin. Invest.: S GIBSON
 Tech. Officer: GSFC/R R FISCHER
 CASE Category: 11 - ASTRONOMY

NAG 5 7624 THE CATHOLIC UNIVERSITY OF AMERICA 3608
 REACTION WHEEL JITTER REDUCTION THROUGH ACTIVE CONTROL OF
 MAGNETIC BEARINGS
 08/03/1998 - 09/30/1998 FY99: -\$10,654 Total: \$10,553
 Prin. Invest.: J CRASSIDIS
 Tech. Officer: GSFC/G BROWN
 CASE Category: 45 - ELECTRICAL ENGR

NAG 5 7700 THE CATHOLIC UNIVERSITY OF AMERICA 3609
 RESEARCH SUPPORT OF WIND MAGNETIC FIELD INSTRUMENT
 09/22/1998 - 09/15/1999 FY99: \$0 Total: \$50,000
 Prin. Invest.: Y WHANG
 Tech. Officer: GSFC/J SLAVIN
 CASE Category: 11 - ASTRONOMY

NAG 5 7753 THE CATHOLIC UNIVERSITY OF AMERICA 3610
 QUANTITATIVE ANALYSIS OF ETHANE AND METHANE IN COMETS HYAKU-
 TAKE AND HALE-BOPP: DETERMINATION OF
 12/08/1998 - 12/31/1999 FY99: \$32,800 Total: \$32,800
 Prin. Invest.: N RUSSO
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 7882 THE CATHOLIC UNIVERSITY OF AMERICA 3611
 THE DISTRIBUTION AND DYNAMICAL EFFECT OF AEROSOLS IN THE MARS
 ATMOSPHERE USING MARS GLOBAL SURVEYOR
 12/01/1998 - 01/31/2000 FY99: \$70,200 Total: \$70,200
 Prin. Invest.: D D SMITH
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 7905 THE CATHOLIC UNIVERSITY OF AMERICA 3612
 SPATIAL-SPECTRAL MAPPING OF COMETARY CO EMISSION, AND COM-
 PARISON WITH OTHER ORGANICS
 12/10/1998 - 09/30/1999 FY99: \$78,500 Total: \$78,500
Prin. Invest.: D A DISANTI
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 8018 THE CATHOLIC UNIVERSITY OF AMERICA 3613
 INTERPRETATION OF SOHO/LASCO,EIT, UVCS OBSERVATION S USING A
 MULTI-DIMENSIONAL MHD MODEL
 01/06/1999 - 12/31/1999 FY99: \$51,276 Total: \$51,276
Prin. Invest.: M GUATHAKURTA
Tech. Officer: GSFC/J GURMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8276 THE CATHOLIC UNIVERSITY OF AMERICA 3614
 RADIATIVE ACCELERATION CALCULATIONS FOR B STAR ENV ELOPES AND
 ATMOSPHERES(ATP 98)
 02/19/1999 - 02/29/2000 FY99: \$50,053 Total: \$50,053
Prin. Invest.: C R PROFFITT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8312 THE CATHOLIC UNIVERSITY OF AMERICA 3615
 LABORATORY PREPARATION AND REACTIONS OF DIRADICAL SPECIES
 RELEVANT TO HYDROCARBON PHOTOCHEMISTRY O
 03/22/1999 - 02/28/2000 FY99: \$70,200 Total: \$70,200
Prin. Invest.: D J BOGAN
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8357 THE CATHOLIC UNIVERSITY OF AMERICA 3616
 GRANT FUNDS FOR UNIVERSITY SUPPORT OF ELEANOR ROOS EVELT
 HIGH SCHOOLINVOLVEMENT IN US FIRST ROB
 03/11/1999 - 12/31/1999 FY99: \$20,000 Total: \$20,000
Prin. Invest.: D NGUYEN
Tech. Officer: GSFC/L PURVES
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8508 THE CATHOLIC UNIVERSITY OF AMERICA 3617
 EXPERIMENTAL STUDIES OF IGNEOUS PROCESSES IN ENSTATITE
 METEORITES
 05/21/1999 - 04/30/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: T DICKINSON
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8529 THE CATHOLIC UNIVERSITY OF AMERICA 3618
 LUNAR ABUNDANCES OF RADIOACTIVE ELEMENTS AND IMPLI CATIONS
 FOR LUNAR EVOLUTION
 06/15/1999 - 06/30/2000 FY99: \$25,000 Total: \$25,000
Prin. Invest.: R D STARR
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8619 THE CATHOLIC UNIVERSITY OF AMERICA 3619
 RESEARCH SUPPORT OF WIND MAGNETIC FIELD INSTRUMENT
 06/18/1999 - 12/31/1999 FY99: \$25,000 Total: \$25,000
Prin. Invest.: Y C WHANG
Tech. Officer: GSFC/J A SLAVIN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8622 THE CATHOLIC UNIVERSITY OF AMERICA 3620
 CONTINUED DEVELOPMENT OF A FABRY-PEROT AND LYOT NARROW
 BAND IMAGING SYSTEM.
 06/22/1999 - 06/30/2000 FY99: \$28,590 Total: \$28,590
Prin. Invest.: F C BRUHWEILER
Tech. Officer: GSFC/B WOODGATE
CASE Category: 11 - ASTRONOMY

NAG 5 8631 THE CATHOLIC UNIVERSITY OF AMERICA 3621
 ATOMIC & MOLECULAR ABUNDANCES IN THE INTERSTELLAR MEDIUM OF
 THE MILKY WAY AND THE MAGELLANIC
 06/25/1999 - 08/14/2000 FY99: \$108,916 Total: \$108,916
Prin. Invest.: F C BRUHWEILER
Tech. Officer: GSFC/G SONNEBORN
CASE Category: 11 - ASTRONOMY

NAG 5 8691 THE CATHOLIC UNIVERSITY OF AMERICA 3622
 A SEARCH FOR ROTATIONAL MODULATION OF X-RAY CTRS ON GAMMA
 CAS (BO.5E)
 07/21/1999 - 07/31/2000 FY99: \$9,810 Total: \$9,810
Prin. Invest.: R D ROBINSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 8752 THE CATHOLIC UNIVERSITY OF AMERICA 3623
 LARGE SCALE STRUCTURE IN THE DISTANT UNIVERSE
 08/17/1999 - 09/30/2000 FY99: \$91,366 Total: \$91,366
Prin. Invest.: F C BRUHWEILER
Tech. Officer: GSFC/B E WOODGATE
CASE Category: 11 - ASTRONOMY

NAG 5 8761 THE CATHOLIC UNIVERSITY OF AMERICA 3624
 HUMAN BIOLOGY-BASED ADAPTIVE SYSTEMS IN SUPPORT OF SPACE
 EXPLORATION
 09/03/1999 - 08/31/2000 FY99: \$52,000 Total: \$52,000
Prin. Invest.: R D PARASURAMAN
Tech. Officer: GSFC/R CROUCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8793 THE CATHOLIC UNIVERSITY OF AMERICA 3625
 ULTRAVIOLET DIAGNOSTICS OF MAGNETIC AND RELATED ACTIVITY IN
 MAIN SEQUENCE B STARS (ADP 98)
 09/07/1999 - 11/30/2000 FY99: \$36,336 Total: \$36,336
Prin. Invest.: M SMITH
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NCC 2 994 THE CATHOLIC UNIVERSITY OF AMERICA 3626
 PHOTOCHEMISTRY OF PLUTO'S ATMOSPHERE
 05/22/1997 - 12/14/1998 FY99: \$0 Total: \$81,380
Prin. Invest.: V A KRASNOPOLSKY
Tech. Officer: ARC/D P CRUIKSHANK, ARC/F C WITTEBORN
CASE Category: 11 - ASTRONOMY

NCC 5 68 THE CATHOLIC UNIVERSITY OF AMERICA 3627
 STUDIES OF ELEMENTARY REACTIONS OF CHEMICAL IMPORT ANCE IN
 THE ATMOSPHERES OF PLANETS
 04/28/1994 - 04/30/2000 FY99: \$249,164 Total: \$776,914
Prin. Invest.: F L NESBITT
Tech. Officer: GSFC/L J STIEF
CASE Category: 12 - CHEMISTRY

NCC 5 83 THE CATHOLIC UNIVERSITY OF AMERICA 3628
 RESEARCH OF COSMIC HARD X-RAYS AND GAMMA RAYS
 03/28/1995 - 03/31/2000 FY99: \$0 Total: \$1,476,880
Prin. Invest.: C WERNITZ, R STARR
Tech. Officer: GSFC/L E ORWIG
CASE Category: 11 - ASTRONOMY

NCC 5 130 THE CATHOLIC UNIVERSITY OF AMERICA 3629
 HIGH RESOLUTION SPECTROSCOPY OF COMETARY COMAE AND PLANETARY ATMOSPHERES: IMPLEMENTATION OF THE NEW...
 02/02/1996 - 03/31/2000 FY99: \$0 Total: \$145,152
Prin. Invest.: M DISANTI, M A DI SANTI
Tech. Officer: GSFC/M J MUMMA
CASE Category: 11 - ASTRONOMY

NCC 5 178 THE CATHOLIC UNIVERSITY OF AMERICA 3630
 PROVIDE FUNDING FOR THE PROPOSAL "CHEMISTRY OF PLAN REACTION RATES AND REACTION PRODUCTS"
 01/22/1997 - 01/31/1999 FY99: -\$14,317 Total: \$182,999
Prin. Invest.: D J BOGAN *Prin. Invest.:* NONE
Tech. Officer: GSFC/L J STIEF
CASE Category: 12 - CHEMISTRY

NCC 5 210 THE CATHOLIC UNIVERSITY OF AMERICA 3631
 INFRARED SPECTROSCOPY OF COMETS: AN OBSERVATIONAL STUDY OF COMETARY COMPOSITION AND ORIGIN.
 06/17/1997 - 05/31/2000 FY99: \$10,200 Total: \$133,000
Prin. Invest.: N RUSSO
Tech. Officer: GSFC/M J MUMMA
CASE Category: 11 - ASTRONOMY

NCC 5 211 THE CATHOLIC UNIVERSITY OF AMERICA 3632
 AERONOMY OF PLANETARY AND COMETARY ATMOSPHERES: S
 06/24/1997 - 05/31/1999 FY99: \$0 Total: \$111,954
Prin. Invest.: V KRASNOPOLSKY
Tech. Officer: GSFC/M J MUMMA
CASE Category: 11 - ASTRONOMY

NCC 5 376 THE CATHOLIC UNIVERSITY OF AMERICA 3633
 THE DRIVERS OF CORONAL AND INTERPLANETARY SHOCKS
 01/19/1999 - 01/30/2000 FY99: \$59,600 Total: \$59,600
Prin. Invest.: N GOPALSWAMY
Tech. Officer: GSFC/M ACUNA
CASE Category: 11 - ASTRONOMY

NCC 5 377 THE CATHOLIC UNIVERSITY OF AMERICA 3634
 THE SUN-EARTH CONNECTION: SOLAR PHYSICS, PHYSICS OF THE HELIOSPHERE, AND SPACE WEATHER
 01/27/1999 - 01/31/2000 FY99: \$67,540 Total: \$67,540
Prin. Invest.: V ANDRETTA
Tech. Officer: GSFC/A I POLAND
CASE Category: 11 - ASTRONOMY

NCC 5 380 THE CATHOLIC UNIVERSITY OF AMERICA 3635
 INVESTIGATION OF X-RAY AND GAMMA-RAYS FROM SOLAR FLARES AND PLANETARY TYPE BODIES
 02/12/1999 - 03/31/2000 FY99: \$505,379 Total: \$505,379
Prin. Invest.: R D STARR
Tech. Officer: GSFC/L ORWIG
CASE Category: 11 - ASTRONOMY

NCC 5 418 THE CATHOLIC UNIVERSITY OF AMERICA 3636
 MAINTENANCE OF THE ISTEP/ACG CDAW DATA BASE
 08/19/1999 - 08/14/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: N GOPALSWAMY
Tech. Officer: GSFC/J GURMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 1 52137 THE CATHOLIC UNIVERSITY OF AMERICA 3637
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/19/1996 - 06/30/1999 FY99: \$12,001 Total: \$66,001
Prin. Invest.: J A DULEY, R PARASURAMAN
Tech. Officer: LARC/P C SCHUTTE, LARC/A T POPE
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52190 THE CATHOLIC UNIVERSITY OF AMERICA 3638
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/20/1998 - 06/30/2000 FY99: \$22,000 Total: \$32,000
Prin. Invest.: S M GALSTER, R PARASURAMAN
Tech. Officer: LARC/P C SCHUTTE, LARC/A T POPE
CASE Category: 69 - PSYCHOLOGY, OTHER

NGT 5 89 THE CATHOLIC UNIVERSITY OF AMERICA 3639
 EXAMINING THE KINEMATICS OF THE NARROW-LINE GAS IN ACTIVE GALAXIES USING STIS
 05/27/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: D CRENSHAW
Tech. Officer: GSFC/G SOFFEN
CASE Category: 13 - PHYSICS

NGT 5 70000 THE CATHOLIC UNIVERSITY OF AMERICA 3640
 GRADUATE STUDENT RESEARCH PROGRAM - STUDENT: CHAR
 08/26/1997 - 06/30/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: D D BRUHWEILER
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 13 - PHYSICS

NAG 5 3961 UNIVERSITY OF DISTRICT OF COLUMBIA 3641
 SCIENTIFIC RENEWAL
 02/18/1997 - 12/31/1998 FY99: \$0 Total: \$199,799
Prin. Invest.: W R COLEMAN
Tech. Officer: GSFC/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4724 UNIVERSITY OF DISTRICT OF COLUMBIA 3642
 SATURDAY ACADEMY PROGRAM
 06/19/1997 - 03/31/2000 FY99: \$295,048 Total: \$1,473,932
Prin. Invest.: W R COLEMAN
Tech. Officer: GSFC/L RANDOLPH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 196 UNIVERSITY OF DISTRICT OF COLUMBIA 3643
 PARTNERSHIP AWARD WITH MINORITY UNIVERSITIES AND C
 05/22/1997 - 09/30/1999 FY99: \$100,000 Total: \$400,000
Prin. Invest.: G WYCHE-MOORE
Tech. Officer: GSFC/E ENGMAN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 5 421 UNIVERSITY OF DISTRICT OF COLUMBIA 3644
 ANACOSTIA RIVER INSTITUTE FOR REMOTE SENSING: A COMMUNITY
 REMOTESENSING PROGRAM
 09/21/1999 - 09/30/2000 FY99: \$50,000 Total: \$50,000
 Prin. Invest.: G WYCHE-MOORE
 Tech. Officer: GSFC/ET ENGMAN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

FLORIDA

NAG10 195 BETHUNE - COOKMAN COLLEGE 3645
 OPERATION OF THE CENTER FOR SPACE EDUCATION
 09/11/1996 - 09/30/2000 FY99: \$345,000 Total: \$1,214,792
 Prin. Invest.: G W BECKLES, A E LONG
 Tech. Officer: KSC/S DUTCZAK
 CASE Category: 41 - AERONAUTICAL ENGR

NAG10 220 BETHUNE - COOKMAN COLLEGE 3646
 NASA MINORITY INSTITUTION ENTREPRENEURIAL PARTNER SHIP GRANT
 06/27/1997 - 12/31/1999 FY99: \$193,000 Total: \$1,600,000
 Prin. Invest.: A D TAYLOR
 Tech. Officer: KSC/G BUCKINGHAM
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 269 BETHUNE - COOKMAN COLLEGE 3647
 NASA/FLORIDA MINORITY INSTITUTION ENTREPRENEURIAL PARTNERSHIP
 09/13/1999 - 08/16/2001 FY99: \$600,000 Total: \$600,000
 Prin. Invest.: A D TAYLOR
 Tech. Officer: KSC/W B WILLIAMS
 CASE Category: 79 - SOCIAL SCIENCE, OTHER

NCC 5 426 BETHUNE - COOKMAN COLLEGE 3648
 A BETTER, FASTER AND INEXPENSIVE PHOTOGRAMMETRY SYSTEM
 09/07/1999 - 08/31/2000 FY99: \$99,991 Total: \$99,991
 Prin. Invest.: E F EKPO
 Tech. Officer: GSFC/SEE HETHERINGTON
 CASE Category: 13 - PHYSICS

NAG 5 6712 ECKERD COLLEGE 3649
 EXPERIMENTAL STUDIES OF THE INFRARED SPECTRA OF COSMIC-TYPE
 ICES
 12/22/1997 - 12/31/1999 FY99: \$8,500 Total: \$16,500
 Prin. Invest.: D SON
 Tech. Officer: GSFC/M MOORE
 CASE Category: 11 - ASTRONOMY

NAG 8 1103 ECKERD COLLEGE 3650
 JOVE
 10/21/1994 - 05/31/1999 FY99: \$0 Total: \$102,260
 Prin. Invest.: J B THOMPSON, S M STANCZYK
 Tech. Officer: MSFC/F SIX
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG10 213 EDWARD WATERS COLLEGE 3651
 CLASSROOM OF THE FUTURE CENTER (COTF) MASTER SCIENCE
 TEACHER CERTIFICATION (MTCF)
 09/01/1997 - 12/31/1999 FY99: \$150,000 Total: \$400,000
 Prin. Invest.: G BUCKINGHAM
 Tech. Officer: KSC/E JOHNSON
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 5199 EMBRY-RIDDLE AERONAUTICAL UNIVERSITY 3652
 ICE CONTENT AND ODD-OXYGEN IN NOCTILUCENT-CLOUDS (ICON)
 06/18/1998 - 03/28/2001 FY99: \$191,370 Total: \$313,791
 Prin. Invest.: P J ESPY
 Tech. Officer: GSFC/W B JOHNSON
 CASE Category: 13 - PHYSICS

NCA 1 133 EMBRY-RIDDLE AERONAUTICAL UNIVERSITY 3653
 1996 AGATE - GENERAL AVIATION
 07/23/1996 - 10/31/1999 FY99: \$994,000 Total: \$2,403,500
 Prin. Invest.: S HAMPTON
 Tech. Officer: LARC/B J HOLMES, LARC/M H DURHAM
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 685 EMBRY-RIDDLE AERONAUTICAL UNIVERSITY 3654
 SILICON CARBIDE DIODE MIXERS FOR IMPROVED SAFETY IN AIRCRAFT
 RF AVIONICS
 03/04/1999 - 01/26/2000 FY99: \$25,000 Total: \$25,000
 Prin. Invest.: A HELFRICK
 Tech. Officer: GRC/P G NEUDECK
 CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1787 FLA INTERNATIONAL UNIVERSITY 3655
 VIBRATION CONTROL FOR FLEXIBLE STRUCTURES BY MEANS OF VISCOE-
 LASTIC DAMPING AND SHAPE MEMORY ALLOY
 12/15/1995 - 10/31/1998 FY99: \$0 Total: \$150,565
 Prin. Invest.: C LEVY, K WU
 Tech. Officer: LARC/J J SINGH
 CASE Category: 46 - MECHANICAL ENGR

NAG 2 1384 FLA INTERNATIONAL UNIVERSITY 3656
 DEVELOPING AN ADVANCED ENVIRONMENT FOR COLLABORATIVE COM-
 PUTING BY AUGMENTING POSTDOC
 09/15/1999 - 12/31/2000 FY99: \$100,000 Total: \$100,000
 Prin. Invest.: I R FERNANDEZ
 Tech. Officer: ARC/H T STEWART, ARC/S LAU
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 2583 FLA INTERNATIONAL UNIVERSITY 3657
 SCATTERING OF METASTABLE ATOMS
 04/28/1994 - 08/31/1998 FY99: -\$6,240 Total: \$208,057
 Prin. Invest.: J W SHELDON, K A HARDY
 Tech. Officer: GSFC/J J HILLMAN
 CASE Category: 13 - PHYSICS

NAG 5 3071 FLA INTERNATIONAL UNIVERSITY 3658
 APPLICATION OF HIGH RESOLUTION DIGITAL TOPOGRAPHIC DATA TO THE
 DETECTION OF INCIPIENT SINKHOLE...
 09/15/1995 - 09/30/1999 FY99: \$0 Total: \$222,164
 Prin. Invest.: D WHITMAN Prin. Invest.: NONE
 Tech. Officer: GSFC/H V FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3124 FLA INTERNATIONAL UNIVERSITY 3659
 REMOTE SENSING OF PHYTOPLANKTON DYNAMICS USING AVIRIS
 DERIVED SPECTRAL AND IMAGE DATA
 10/17/1995 - 10/31/1997 FY99: -\$795 Total: \$67,453
 Prin. Invest.: L L RICHARDSON, V AMBROSIA
 Tech. Officer: GSFC/K R ARRIGO, GSFC/C R MCCLAIN
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 3826 **FLA INTERNATIONAL UNIVERSITY** **3660**
 BASIC RESEARCH IN ATOMIC, MOLECULAR AND OPTICAL PHYSICS IN SUPPORT OF NASA STRATEGIC ENTERPRISES
 01/29/1997 - 01/31/2000 FY99: \$99,598 Total: \$298,794
Prin. Invest.: K HARDY
Tech. Officer: GSFC/R HARTLE
CASE Category: 11 - ASTRONOMY

NAG 5 6324 **FLA INTERNATIONAL UNIVERSITY** **3661**
 INTERACTIVE VIDEO TELECONFERENCING
 09/08/1997 - 07/31/1998 FY99: -\$2,050 Total: \$17,950
Prin. Invest.: G ROIG
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6531 **FLA INTERNATIONAL UNIVERSITY** **3662**
 HIGH PERFORMANCE DATABASE MANAGEMENT WITH APPLICATION TO EARTH SCIENCES
 11/03/1997 - 09/30/1999 FY99: \$500,000 Total: \$2,000,000
Prin. Invest.: N RISHE
Tech. Officer: GSFC/J MALONE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6556 **FLA INTERNATIONAL UNIVERSITY** **3663**
 MASTAP AWARD
 11/03/1997 - 08/31/1999 FY99: \$0 Total: \$180,000
Prin. Invest.: C BRAIN
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6830 **FLA INTERNATIONAL UNIVERSITY** **3664**
 THE FIU CENTER OF EXCELLENCE FOR RESEARCH AND INSTRUCTION IN REMOTE SENSING TECHNOLOGY
 01/20/1998 - 01/31/1999 FY99: \$0 Total: \$90,000
Prin. Invest.: D WITHMAN
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7325 **FLA INTERNATIONAL UNIVERSITY** **3665**
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 04/24/1998 - 04/30/1999 FY99: \$0 Total: \$1,400
Prin. Invest.: J R WEBB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8156 **FLA INTERNATIONAL UNIVERSITY** **3666**
 AVIRIS IMAGE CLASSIFICATION USING PHYTOPLANKTON REFLECTANCE SPECTRA
 02/02/1999 - 01/31/2000 FY99: \$14,222 Total: \$14,222
Prin. Invest.: L L RICHARDSON
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8791 **FLA INTERNATIONAL UNIVERSITY** **3667**
 A STUDY OF THE FINAL PRODUCT STATES OF THE DISSOCIATIVE RECOMBINATION REACTION BY TOSPECTROSCOPY
 08/31/1999 - 08/31/2000 FY99: \$99,416 Total: \$99,416
Prin. Invest.: K HARDY
Tech. Officer: GSFC/R HARTLE
CASE Category: 13 - PHYSICS

NAG10 150 **FLA INTERNATIONAL UNIVERSITY** **3668**
 UTILIZATION OF THE SFC DATABASE
 01/03/1995 - 01/08/1998 FY99: -\$14,268 Total: \$210,575
Prin. Invest.: M A CENTENO
Tech. Officer: KSC/A M MITSKEVICH
CASE Category: 41 - AERONAUTICAL ENGR

NAG10 211 **FLA INTERNATIONAL UNIVERSITY** **3669**
 INTENSIVE SCIENTIFIC INTERCURRICULAR ONSITE EDUCATION PROJECT V.I.S.I.O.N
 09/01/1997 - 08/31/1999 FY99: \$200,000 Total: \$800,000
Prin. Invest.: G ROIG
Tech. Officer: KSC/E JOHNSON
CASE Category: 49 - ENGINEERING, OTHER

NAG10 212 **FLA INTERNATIONAL UNIVERSITY** **3670**
 APPLIED RESEARCH IN INDUSTRIAL & SYSTEMS ENGINEERING (ARISE) CENTER
 08/29/1997 - 12/31/1999 FY99: \$149,982 Total: \$399,960
Prin. Invest.: M A CENTENO
Tech. Officer: KSC/A MITSKEVICH
CASE Category: 49 - ENGINEERING, OTHER

NAG10 229 **FLA INTERNATIONAL UNIVERSITY** **3671**
 CLCS DESIGN PROGRAM
 09/17/1997 - 11/30/1999 FY99: \$0 Total: \$61,847
Prin. Invest.: J JACKO, M RESNICK
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 22 - COMPUTER SCIENCE

NAG10 251 **FLA INTERNATIONAL UNIVERSITY** **3672**
 MATHEMATICS, SCIENCE & TECH ACHIEVEMENT (MSTA)
 09/23/1998 - 09/22/2000 FY99: \$99,998 Total: \$199,996
Prin. Invest.: C MENDEZ
Tech. Officer: KSC/R MCKINNEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 254 **FLA INTERNATIONAL UNIVERSITY** **3673**
 PROGRAM
 05/01/1999 - 08/14/2000 FY99: \$199,991 Total: \$199,991
Prin. Invest.: C MENDEZ
Tech. Officer: KSC/R MCKINNEY
CASE Category: 79 - SOCIAL SCIENCE, OTHER

NAG10 259 **FLA INTERNATIONAL UNIVERSITY** **3674**
 MSTA - MATH, SCIENCE & TECHNOLOGY ACHIEVEMENT
 05/01/1999 - 08/14/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: I BECCERA-FERNANDEZ
Tech. Officer: KSC/S ROBERTS
CASE Category: 22 - COMPUTER SCIENCE

NAG10 268 **FLA INTERNATIONAL UNIVERSITY** **3675**
 PROJECT VISION: VERY INTENSIVE SCIENTIFIC INTERCURRICULAR ON-SITE EDUCATION
 09/09/1999 - 08/31/2001 FY99: \$397,727 Total: \$397,727
Prin. Invest.: G A ROIG
Tech. Officer: KSC/R J MCKINNEY
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 2 917 **FLA INTERNATIONAL UNIVERSITY** **3676**
 AERONAUTICS LEARNING LABORATORY FOR SCIENCE TECHNOLOGY &
 RESEARCH (ALL STAR) NETWORK
 07/24/1995 - 06/30/1999 FY99: \$0 Total: \$1,184,843
Prin. Invest.: C LEVY
Tech. Officer: ARC/M J LEON, ARC/W C LIKENS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT10 52614 **FLA INTERNATIONAL UNIVERSITY** **3677**
 NEW AUTOMATED WEB-BASED TRACKING SYSTEM
 09/05/1997 - 08/31/1998 FY99: -\$1,040 Total: \$20,960
Prin. Invest.: J A JACKO
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 22 - COMPUTER SCIENCE

NAG 1 1866 **FLORIDA A&M UNIVERSITY** **3678**
 MICROMECHANICAL CHARACTERIZATION AND TEXTURE ANALYSIS OF
 DIRECT CAST TITANIUM ALLOY STRIP
 09/12/1996 - 12/31/1999 FY99: \$82,998 Total: \$297,954
Prin. Invest.: H GARMESTANI
Tech. Officer: LARC/B A BAUM
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1930 **FLORIDA A&M UNIVERSITY** **3679**
 SHOCK WAVE DYNAMICS IN WEAKLY IONIZED PLASMAS
 05/29/1997 - 05/31/1998 FY99: \$0 Total: \$30,000
Prin. Invest.: J A JOHNSON, III
Tech. Officer: LARC/A H AUSLENDER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2114 **FLORIDA A&M UNIVERSITY** **3680**
 WEAKLY IONIZED PLASMAS AND SHOCK WAVE DYNAMICS
 10/19/1998 - 12/31/1998 FY99: \$30,000 Total: \$30,000
Prin. Invest.: J A JOHNSON
Tech. Officer: LARC/A H AUSLENDER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1663 **FLORIDA A&M UNIVERSITY** **3681**
 BASIC STUDIES ON STOVL AIRCRAFT JET EFFECTS AND HOT GAS INGES-
 TION
 09/15/1994 - 07/29/1999 FY99: \$0 Total: \$123,773
Prin. Invest.: A KROTHAPALLI
Tech. Officer: GRC/A L JOHNS, GRC/T J BIESIADNY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1759 **FLORIDA A&M UNIVERSITY** **3682**
 A GRADUATE FELLOWSHIP COMPONENT TO AUGMENT PROGRAM IMAGE
 06/14/1995 - 06/29/2000 FY99: \$264,852 Total: \$1,166,379
Prin. Invest.: F S HUMPHRIES, F J FOREMAN, NONE
Tech. Officer: GRC/J E BOYD
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 1971 **FLORIDA A&M UNIVERSITY** **3683**
 CUBIC BORON NITRIDE ALPHAVOLTAIC DEVICES
 09/21/1996 - 12/31/1999 FY99: \$0 Total: \$259,505
Prin. Invest.: S M DURBIN
Tech. Officer: GRC/G C RYBICKI
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2056 **FLORIDA A&M UNIVERSITY** **3684**
 FLIGHT EFFECTS ON FORWARD RADIATED HSCT FAN NOISE FLIGHT
 EFFECTS ON FORWARD RADIATED HSCT FAN NOISE
 09/16/1997 - 09/30/1999 FY99: \$0 Total: \$202,119
Prin. Invest.: A KROTHAPALLI
Tech. Officer: GRC/R P WOODWARD
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 3 2193 **FLORIDA A&M UNIVERSITY** **3685**
 ROBUST FAULT DETECTION AND ISOLATION FOR NASA LAUNCH
 VEHICLES
 09/01/1998 - 08/31/2001 FY99: \$0 Total: \$55,145
Prin. Invest.: E G COLLINS
Tech. Officer: GRC/T GUO
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 3 2198 **FLORIDA A&M UNIVERSITY** **3686**
 TURBULENCE BASED ICE PROTECTION SYSTEMS FOR SUPER- COOLED
 LIQUID DROPLETS
 09/10/1998 - 06/17/1999 FY99: \$0 Total: \$100,000
Prin. Invest.: J A JOHNSON, III
Tech. Officer: GRC/M POTAPCZUK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 164 **FLORIDA A&M UNIVERSITY** **3687**
 EVOLUTIONARY ALGORITHMS
 02/26/1999 - 02/25/2001 FY99: \$76,792 Total: \$76,792
Prin. Invest.: M ABDULLAH, F HAMILTON
Tech. Officer: DFRC/K GUPTA, DFRC/E COX
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 6631 **FLORIDA A&M UNIVERSITY** **3688**
 PARTIAL DIFFERENTIAL EQUATION APPROACH TO ATOMIC AND MOLECUL-
 AR COLLISIONS
 12/22/1997 - 12/14/1998 FY99: \$0 Total: \$91,600
Prin. Invest.: B SAHA
Tech. Officer: GSFC/A TEMKIN
CASE Category: 13 - PHYSICS

NAG 5 7989 **FLORIDA A&M UNIVERSITY** **3689**
 LINKAGES 2001
 12/31/1998 - 12/31/1999 FY99: \$200,000 Total: \$200,000
Prin. Invest.: D H AMMONS
Tech. Officer: GSFC/J L HARRINGTON, JR.
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 214 **FLORIDA A&M UNIVERSITY** **3690**
 DISCOVER - SBI/NASA INTERSHIPS
 09/01/1997 - 08/31/2000 FY99: \$150,000 Total: \$400,000
Prin. Invest.: S MOBLEY
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 49 - ENGINEERING, OTHER

NAG10 226 **FLORIDA A&M UNIVERSITY** **3691**
 CONTROL & CALIBRATION OF ARID
 09/18/1997 - 09/17/1999 FY99: \$0 Total: \$144,513
Prin. Invest.: R ROBERTS
Tech. Officer: KSC/T LIPPITT
CASE Category: 49 - ENGINEERING, OTHER

NAG10 238 **FLORIDA A&M UNIVERSITY** **3692**
 MINORITY ACCESS TO GRAD ENGR PROGRAM
 12/17/1997 - 09/30/1999 FY99: \$1,455,542 Total: \$3,273,056
Prin. Invest.: F S HUMPHRIES
Tech. Officer: KSC/E SMITH
CASE Category: 49 - ENGINEERING, OTHER

NAG10 239 **FLORIDA A&M UNIVERSITY** **3693**
 ENGINEERING CONCEPTS INSTITUTE (ECI) MINORITY ENGINEERING PROGRAM
 12/17/1997 - 12/18/1998 FY99: \$0 Total: \$65,200
Prin. Invest.: F J FAREMAN
Tech. Officer: KSC/E SMITH
CASE Category: 49 - ENGINEERING, OTHER

NAG10 242 **FLORIDA A&M UNIVERSITY** **3694**
 MAPSTAP
 05/13/1998 - 05/08/2000 FY99: \$200,000 Total: \$399,999
Prin. Invest.: B SAMUELS
Tech. Officer: KSC/E JOHNSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 248 **FLORIDA A&M UNIVERSITY** **3695**
 PRODIGY 2000
 09/23/1998 - 09/22/2000 FY99: \$100,000 Total: \$200,000
Prin. Invest.: B MCCUNE
Tech. Officer: KSC/R MCKINNEY
CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NAG10 262 **FLORIDA A&M UNIVERSITY** **3696**
 SPACE LIFE SCIENCES TRAINING PROGRAM
 05/12/1999 - 12/31/1999 FY99: \$291,549 Total: \$291,549
Prin. Invest.: B SAMUELS
Tech. Officer: KSC/E JOHNSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 264 **FLORIDA A&M UNIVERSITY** **3697**
 ELECTROSTATIC CHARGING, PRECIPITATION, ADHESION, AND DISSIPATION IN THE MARTIAN ATMOSPHERE
 08/01/1999 - 07/31/2000 FY99: \$98,997 Total: \$98,997
Prin. Invest.: F B GROSS
Tech. Officer: KSC/R LEE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG10 267 **FLORIDA A&M UNIVERSITY** **3698**
 PROJECT DISCOVER II SBI/NASA INTERNSHIPS PROJECT DISCOVER II SBI/NASA INTERNSHIPS
 09/09/1999 - 08/31/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: S C MOBLEY
Tech. Officer: KSC/R J MCKINNEY
CASE Category: 79 - SOCIAL SCIENCE, OTHER

NAG10 272 **FLORIDA A&M UNIVERSITY** **3699**
 FAULT TOLERANT ROBOT ANALYSIS AND DESIGN
 09/27/1999 - 09/20/2000 FY99: \$92,270 Total: \$92,270
Prin. Invest.: R G ROBERTS
Tech. Officer: KSC/W C JONES
CASE Category: 49 - ENGINEERING, OTHER

NAG13 41 **FLORIDA A&M UNIVERSITY** **3700**
 LABILE AND STABLE SOC POOLS REVEALED BY C-14 AND C-13 SIGNATURES
 09/27/1996 - 06/26/2000 FY99: \$72,507 Total: \$288,905
Prin. Invest.: Y P HSIEH
Tech. Officer: SSC/A JOYCE
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG13 43 **FLORIDA A&M UNIVERSITY** **3701**
 REMOTE SENSING LAND-USE CLASSIFICATION AND ENHANCEMENT OF AGRICULTURAL PRODUCTION IN SOUTH AFRICA
 07/24/1995 - 03/31/1999 FY99: \$0 Total: \$292,774
Prin. Invest.: S PANCHOLY
Tech. Officer: SSC/A JOYCE
CASE Category: 43 - CHEMICAL ENGR

NCC 1 252 **FLORIDA A&M UNIVERSITY** **3702**
 CENTER FOR NONLINEAR AND NONEQUILIBRIUM AEROSCIENCES (CEN-NAS)
 04/23/1997 - 12/31/1999 FY99: \$1,000,000 Total: \$3,000,000
Prin. Invest.: J JOHNSON
Tech. Officer: LARC/W SELLERS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 956 **FLORIDA A&M UNIVERSITY** **3703**
 A COOPERATIVE RESEARCH PROGRAM IN AERONAUTICAL INFORMATION SCIENCE TECHNOLOGIES
 07/01/1996 - 10/31/1999 FY99: \$289,975 Total: \$943,715
Prin. Invest.: A KROTHAPALLI, L LOURENCO, S WALKER
Tech. Officer: ARC/J C ROSS, ARC/P T SODERMAN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 1005 **FLORIDA A&M UNIVERSITY** **3704**
 DEVELOPMENT OF A TRANSDERMAL DELIVERY DEVICE FOR MELATONIN IN VIVO
 08/25/1997 - 11/30/1999 FY99: \$91,412 Total: \$221,306
Prin. Invest.: M S SACHDEVA
Tech. Officer: ARC/C M WINGET, ARC/G S LEE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 1018 **FLORIDA A&M UNIVERSITY** **3705**
 INTEGRATED DESIGN SYSTEMS TECHNOLOGY
 02/12/1998 - 12/31/1999 FY99: \$199,979 Total: \$480,263
Prin. Invest.: A KROTHAPALLI
Tech. Officer: ARC/C A SMITH
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 90018 **FLORIDA A&M UNIVERSITY** **3706**
 ENGINEERING CONCEPT INSTITUTE
 02/21/1997 - 09/30/1997 FY99: -\$159 Total: \$59,622
Prin. Invest.: F J FOREMAN
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 90062 **FLORIDA A&M UNIVERSITY** **3707**
 SPACE LIFE SCIENCES TRAINING PROGRAM (SLSTP)
 02/12/1997 - 02/28/1999 FY99: \$0 Total: \$881,264
Prin. Invest.: C B GOODMAN
Tech. Officer: GSFC/L P RANDOLPH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1202 **FLORIDA ATLANTIC UNIVERSITY** **3708**
 BROAD BAND NOISE PREDICTION FOR ADVANCED DUCTED PROP FANS
 USIN LOCALLY GENERATED INFLOWFDP
 12/17/1990 - 02/28/1998 FY99: -\$1,267 Total: \$426,645
Prin. Invest.: S A GLEGG
Tech. Officer: LARC/J W POSEY, LARC/F FARASSAT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1310 **FLORIDA ATLANTIC UNIVERSITY** **3709**
 FUNDAMENTAL PROBLEMS IN PROBABILISTICS AND CONVEX ANALYSES
 OF UNCERTAIN INITIAL IMPERFECTIONSFD
 07/15/1991 - 06/30/1998 FY99: -\$97 Total: \$321,048
Prin. Invest.: I ELISHAKOFF
Tech. Officer: LARC/J H STARNES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1812 **FLORIDA ATLANTIC UNIVERSITY** **3710**
 EVALUATION OF STRUCTURE-BORNE NOISE PREDICTION TECHNIQUES
 (NLPN 95-1224)
 02/23/1996 - 12/31/1999 FY99: \$0 Total: \$60,000
Prin. Invest.: J M CUSCHIERI, C B BURROUGHS, G P CARROLL
Tech. Officer: LARC/K H LYLE, LARC/R J SILCOX
CASE Category: 46 - MECHANICAL ENGR

NAG 1 1993 **FLORIDA ATLANTIC UNIVERSITY** **3711**
 BROADBAND FAN NOISE FROM TURBULENT VORTICAL FLOWS INCIDENT
 ON STATOR VANES
 01/15/1998 - 01/14/2000 FY99: \$83,018 Total: \$142,018
Prin. Invest.: S L GLEGG, M DHANAK
Tech. Officer: LARC/J W POSEY, LARC/F FARASSAT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2115 **FLORIDA ATLANTIC UNIVERSITY** **3712**
 FUNDAMENTAL ISSUES ON INTERRELATION BETWEEN SAFETY FACTORS
 AND UNCERTANINTY ANALYSIS
 10/29/1998 - 12/30/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: T ELISHAKOFF
Tech. Officer: LARC/J H STARNES, JR.
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2023 **FLORIDA ATLANTIC UNIVERSITY** **3713**
 SPACE COMMUNICATIONS TECHNOLOGY CENTER
 03/12/1997 - 06/27/2000 FY99: \$261,000 Total: \$916,000
Prin. Invest.: W E GLENN, H HELMKEN
Tech. Officer: GRC/T P BIZON
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 3903 **FLORIDA ATLANTIC UNIVERSITY** **3714**
 ONE- AND MULTIDIMENSIONAL RADIATION HYDRODYNAMICS NOVAE
 03/03/1997 - 02/14/1999 FY99: \$0 Total: \$60,000
Prin. Invest.: S W BRUENN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG10 193 **FLORIDA ATLANTIC UNIVERSITY** **3715**
 STUDY PROPERTIES OF SPRAYED ZINC
 04/26/1996 - 12/31/1998 FY99: \$0 Total: \$138,343
Prin. Invest.: W H HARTT
Tech. Officer: KSC/R LEE
CASE Category: 13 - PHYSICS

NAS 3 26956 **FLORIDA ATLANTIC UNIVERSITY** **3716**
 ACTS PROPAGATION EXPERIMENTS
 06/21/1993 - 03/31/2000 FY99: \$34,181 Total: \$313,484
Prin. Invest.: H F HELMKEN
Tech. Officer: GRC/R J GUNDERMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 2 1141 **FLORIDA ATLANTIC UNIVERSITY** **3717**
 ACHIEVING HIGH SOFTWARE RELIABILITY
 09/17/1999 - 12/31/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: T G KHOSGOFTAR
Tech. Officer: ARC/S YASSINI, ARC/D OZBURN
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5264 **FLORIDA ATLANTIC UNIVERSITY** **3718**
 AN INVESTIGATION OF HINGELESS-ROTOR TRIM & STABILITY WITH
 EXPERIMENTAL CORRELATION
 04/23/1998 - 12/31/1999 FY99: \$0 Total: \$20,143
Prin. Invest.: G H GEONKAR
Tech. Officer: ARC/T H MAIER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1957 **FLORIDA INSTITUTE OF TECHNOLOGY** **3719**
 ADVANCED COMMUNICATIONS DATALINK FOR MODERN COCKPITS
 07/30/1997 - 08/01/1998 FY99: -\$3,319 Total: \$26,681
Prin. Invest.: F HAM, D M HAM
Tech. Officer: LARC/P A PADILLA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2061 **FLORIDA INSTITUTE OF TECHNOLOGY** **3720**
 DELAMINATION MODELING OF COMPOSITES FOR IMPROVED CRASH ANAL-
 YSIS.
 05/06/1998 - 05/19/1999 FY99: \$12,279 Total: \$42,973
Prin. Invest.: D C FLEMING
Tech. Officer: LARC/K E JACKSON, LARC/L E JONES
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1171 **FLORIDA INSTITUTE OF TECHNOLOGY** **3721**
 AUTOMATIC SCHEDULING OF TELESCOPE OBSERVATIONS ON THE SARA.9
 METER KITT PEAK TELESCOPE USING THE....
 12/16/1997 - 03/31/2000 FY99: \$12,325 Total: \$54,560
Prin. Invest.: R A MORRIS
Tech. Officer: ARC/J L BRESINA
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 3886 **FLORIDA INSTITUTE OF TECHNOLOGY** **3722**
 BABY MACHINE ANALYSIS OF CELLULAR GRAVITY SENSITIV
 03/04/1997 - 04/30/1999 FY99: \$0 Total: \$101,011
Prin. Invest.: C HELMSTETTER
Tech. Officer: GSFC/T SCOTT
CASE Category: 11 - ASTRONOMY

NAG 5 4897 **FLORIDA INSTITUTE OF TECHNOLOGY** **3723**
 CRRES AND GEOSYNCHRONOUS OBSERVATIONS OF PLASMASPH AMICS
 06/24/1997 - 06/30/2000 FY99: \$52,334 Total: \$120,963
Prin. Invest.: D B MOLDWIN
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 8 1582 **FLORIDA INSTITUTE OF TECHNOLOGY** **3724**
 "NEW CELL CULTURE TECHNOLOGY"
 01/07/1999 - 11/30/2002 FY99: \$100,000 Total: \$100,000
Prin. Invest.: C HELMSTALTER
Tech. Officer: MSFC/B GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 5153 **FLORIDA INSTITUTE OF TECHNOLOGY** **3725**
 CRRES AND GEOSYNCHRONOUS OBSERVATIONS
 09/03/1996 - 09/30/1997 FY99: -\$24 Total: \$44,676
Prin. Invest.: M MOLDWIN
Tech. Officer: GSFC/J D BOHLIN, GSFC/G L WITHBORE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51086 **FLORIDA INSTITUTE OF TECHNOLOGY** **3726**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/01/1993 - 12/31/1997 FY99: \$0 Total: \$66,000
Prin. Invest.: T D OSWALT
Tech. Officer: HQ/D HOLLAND
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 5 50257 **FLORIDA INSTITUTE OF TECHNOLOGY** **3727**
 TECHNOLOGIES FOR ASSESSING THE EFFECTS OF LONG-TERM SPACE
 HABITATION ON CELLULAR AGING_ STUDENT: K
 07/09/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: C HELMSTETTER
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT10 52604 **FLORIDA INSTITUTE OF TECHNOLOGY** **3728**
 GRADUATE STUDENT RESEARCH GRANT
 04/08/1996 - 07/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: J C BAUM, A B BROWN
Tech. Officer: KSC/D LUECK
CASE Category: 12 - CHEMISTRY

NGT10 52621 **FLORIDA INSTITUTE OF TECHNOLOGY** **3729**
 TRAINING GRANT UNDER A GRADUATE STUDENT RESEARCHERS PRO-
 GRAM
 06/22/1999 - 07/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R LANIER
Tech. Officer: KSC/J MEDINA
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT10 52622 **FLORIDA INSTITUTE OF TECHNOLOGY** **3730**
 TRAINING GRANT UNDER A GRADUATE STUDENT RESEARCHERS PRO-
 GRAM
 07/02/1999 - 07/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: M BUSH
Tech. Officer: KSC/R WHEELER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 196 **FLORIDA MEMORIAL COLLEGE** **3731**
 MINORITY AVIATION CAREER AWARENESS PROGRAM
 09/24/1996 - 09/30/1999 FY99: \$0 Total: \$329,995
Prin. Invest.: D T COLEMAN
Tech. Officer: KSC/J DIGGS
CASE Category: 41 - AERONAUTICAL ENGR

NAG10 247 **FLORIDA MEMORIAL COLLEGE** **3732**
 DEVELOP A SCIENCE & TECH INITIATIVE FOR AFRICAN AMERICAN &
 OTHER UNDER-REPRESENTED STUDENTS
 08/01/1998 - 08/31/2000 FY99: \$144,968 Total: \$447,681
Prin. Invest.: H HUISSO
Tech. Officer: KSC/R MC KINNEY
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 1 1771 **FLORIDA STATE UNIVERSITY** **3733**
 HIGH RESOLUTION NUMERICAL SIMULATIONS AND DIAGNOS- TIC STUD-
 IES OF ATMOSPHERIC TRANSPORT DURING PEM-
 10/18/1995 - 02/17/1999 FY99: -\$4,577 Total: \$526,212
Prin. Invest.: T N KRISHNAMURTI, H E FUELBERG
Tech. Officer: LARC/J M HOELL, JR.
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1776 **FLORIDA STATE UNIVERSITY** **3734**
 JET AEROACOUSTICS: NOISE GENERATION MECHANISMS AND PREDIC-
 TION
 10/26/1995 - 08/31/1999 FY99: \$15,001 Total: \$255,002
Prin. Invest.: C W TAM
Tech. Officer: LARC/J S PREISSER, LARC/T D NORUM
CASE Category: 13 - PHYSICS

NAG 1 1795 **FLORIDA STATE UNIVERSITY** **3735**
 A STUDY OF ATMOSPHERIC FLOW PATTERNS DURING GTE FIELD PRO-
 JECTS
 01/25/1996 - 10/24/1998 FY99: -\$6 Total: \$59,656
Prin. Invest.: H E FUELBERG
Tech. Officer: LARC/G L GREGORY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1889 **FLORIDA STATE UNIVERSITY** **3736**
 PREDICTION OF COMPRESSIBLE JET FLOW FIELDS AND AERODYNAMIC
 SOUND_FIELD
 01/09/1997 - 12/31/1999 FY99: \$185,666 Total: \$434,508
Prin. Invest.: M Y HUSSANI
Tech. Officer: LARC/J M SEINER, LARC/M K PONTON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1952 **FLORIDA STATE UNIVERSITY** **3737**
 MEASUREMENT OF UNSTEADY VELOCITY FIELDS IN SUPER SONIC JET
 FLOWS USING PIV
 07/01/1997 - 04/30/1998 FY99: -\$4,513 Total: \$45,487
Prin. Invest.: L LOURENCO
Tech. Officer: LARC/J M SEINER, LARC/B JANSEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1977 **FLORIDA STATE UNIVERSITY** **3738**
 ADVANCED CAA METHODS FOR AIRFRAME NOISE PREDICTION AND SIM-
 ULATION
 12/08/1997 - 12/07/1998 FY99: \$0 Total: \$30,000
Prin. Invest.: C K TAM
Tech. Officer: LARC/C TAM
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1986 **FLORIDA STATE UNIVERSITY** **3739**
 MICRO-AND MACRO-FLUID DYNAMICS AND ACOUSTICS OF RESONANT
 LINERS
 01/02/1998 - 12/31/1999 FY99: \$90,000 Total: \$180,000
Prin. Invest.: K W TAM
Tech. Officer: LARC/W R WATSON, LARC/T L PARROTT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2078 **FLORIDA STATE UNIVERSITY** **3740**
 NOISE SUPPRESSION OF HEATED SUPERSONIC JETS BY WATER INJECTION
 06/16/1998 - 04/30/2001 FY99: \$84,954 Total: \$134,521
Prin. Invest.: A KROTHAPALLI, L LOURENCO
Tech. Officer: LARC/M K NORUM, LARC/M K PONTON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2127 **FLORIDA STATE UNIVERSITY** **3741**
 DYNAMICAL FACTORS CONTROLLING OZONE, OH AND AEROSOL LEVELS
 OVER THE PEM-TROPICS B REGION
 01/20/1999 - 12/31/2001 FY99: \$73,829 Total: \$73,829
Prin. Invest.: T N KRISHNAURTI
Tech. Officer: LARC/J R RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2145 **FLORIDA STATE UNIVERSITY** **3742**
 AIRFRAME-JET ENGINE INTEGRATION NOISE
 03/30/1999 - 12/31/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: C K TAM
Tech. Officer: LARC/R R ANTCLIFF
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1098 **FLORIDA STATE UNIVERSITY** **3743**
 NUMERICAL SIMULATIONS & DIAGNOSTIC STUDIES OF ATMOSPHERIC
 TRANSPORT DURING SONEX
 12/30/1996 - 12/31/1999 FY99: \$0 Total: \$184,934
Prin. Invest.: H E FUELBERG
Tech. Officer: ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1183 **FLORIDA STATE UNIVERSITY** **3744**
 DEVELOPMENT OF TOOLS & SUPPORT OF PIV MEASUREMENTS IN THE
 NASA-AMES 80X120 WIND TUNNEL
 02/27/1998 - 12/31/1998 FY99: \$0 Total: \$30,000
Prin. Invest.: L M LOURENCO
Tech. Officer: ARC/G K YAMAUCHI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1683 **FLORIDA STATE UNIVERSITY** **3745**
 JET MIXING NOISE FROM FINE SCALE TURBULENCE
 12/01/1994 - 09/30/1998 FY99: \$0 Total: \$242,810
Prin. Invest.: C K TAM
Tech. Officer: GRC/E A KREJSA, GRC/J F GROENEWEG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1841 **FLORIDA STATE UNIVERSITY** **3746**
 THERETICAL STUDIES OF LIQUID HELIUM NEAR THE SUPER FLUID TRANSITION
 05/01/1996 - 04/30/2000 FY99: \$52,000 Total: \$216,000
Prin. Invest.: E MANOUSAKIS, NONE
Tech. Officer: GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1885 **FLORIDA STATE UNIVERSITY** **3747**
 FLUID PHYSICS IN STOCHASTIC ACCELERATION ENVIRONMENT
 06/17/1996 - 06/16/2000 FY99: \$104,980 Total: \$324,936
Prin. Invest.: J VINALS
Tech. Officer: GRC/A CHAIT
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2102 **FLORIDA STATE UNIVERSITY** **3748**
 NUMERICAL SIMULATION OF SCREECH TONES FROM SUPERSONIC JETS:
 PHYSICS & PREDICTIONS
 12/24/1997 - 11/30/2000 FY99: \$82,500 Total: \$162,500
Prin. Invest.: C K TAM
Tech. Officer: GRC/K Q ZAMAN
CASE Category: 46 - MECHANICAL ENGR

NAG 5 1660 **FLORIDA STATE UNIVERSITY** **3749**
 VARIATIONAL DATA ASSIMILATION WITH SEMI-IMPLICIT SEMI-LAGRANGIAN
 SHALLOW WATER EQUATION MODEL
 07/15/1991 - 10/31/1997 FY99: -\$421 Total: \$522,485
Prin. Invest.: I M NAVON
Tech. Officer: GSFC/J R BATES
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2447 **FLORIDA STATE UNIVERSITY** **3750**
 QUALITY ASSURANCE OF BOREAS NET RADIATION MEASUREMENT
 11/30/1993 - 09/30/1998 FY99: \$0 Total: \$564,202
Prin. Invest.: E A SMITH
Tech. Officer: GSFC/F G HALL, GSFC/P J SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2719 **FLORIDA STATE UNIVERSITY** **3751**
 GROUND TRUTH FOR TRMM IN FLORIDA
 09/08/1994 - 09/14/1998 FY99: \$0 Total: \$260,000
Prin. Invest.: P S SMITH
Tech. Officer: GSFC/O THIELE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 2970 **FLORIDA STATE UNIVERSITY** **3752**
 GEOMAGNETIC FIELD ANALYSIS IN CONJUNCTION WITH THE ORSTED MISSION
 06/12/1995 - 06/30/1998 FY99: \$0 Total: \$150,000
Prin. Invest.: J CAIN
Tech. Officer: GSFC/P TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3185 **FLORIDA STATE UNIVERSITY** **3753**
 ANALYSIS AND COMPARISON OF ATMOSPHERIC OZONE DATA
 03/21/1996 - 12/31/1998 FY99: -\$908 Total: \$14,944
Prin. Invest.: D C CAIN
Tech. Officer: GSFC/R D MCPETERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4729 **FLORIDA STATE UNIVERSITY** **3754**
 INITIALIZATION AND HIGH RESOLUTION GLOBAL PREDICTED DATA FROM
 TRMM PROGRAM AREA: MODELING, ANALYSIS,
 07/03/1997 - 06/30/2000 FY99: \$76,848 Total: \$318,545
Prin. Invest.: T N KRISHNAMURTI
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4752 **FLORIDA STATE UNIVERSITY** **3755**
 VALIDATING TRMM-DERIVED LATENT HEATING DISTRIBUTION COMBINED-
 INSTRUMENT RETRIEVAL ALGORITHM INCLUDING IMPACTS
 06/18/1997 - 05/31/2000 FY99: \$90,000 Total: \$375,000
Prin. Invest.: E A SMITH
Tech. Officer: GSFC/A J NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4813 **FLORIDA STATE UNIVERSITY** **3756**
 STUDIES OF VARIABLE CLIMATE PROCESS
 06/19/1997 - 09/30/1999 FY99: \$0 Total: \$163,925
Prin. Invest.: W DEWAR
Tech. Officer: GSFC/E J LINDSTROM
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4873 **FLORIDA STATE UNIVERSITY** **3757**
 USING NASA FULL PHYSICS ADJOINT OF THE GEOS-1 GCM ANALYSIS,
 SENSITIVITY ANALYSIS AND OPTIMAL SENSOR
 07/03/1997 - 05/31/2000 FY99: \$63,000 Total: \$278,576
Prin. Invest.: I NAVON
Tech. Officer: GSFC/M HALL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4921 **FLORIDA STATE UNIVERSITY** **3758**
 SIBERIAN PERMAFROST: APPLICATIONS TO MARS
 07/07/1997 - 05/31/2000 FY99: \$0 Total: \$117,372
Prin. Invest.: D FRIEDMANN
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 6258 **FLORIDA STATE UNIVERSITY** **3759**
 AN INTERCOMPARISON OF THE INFLUENCE OF VEGETATION SURFACE-AT-
 MOSPHERE WATER EXCHANGE AND BOUNDARY LAY
 08/27/1997 - 01/31/2000 FY99: \$118,000 Total: \$290,000
Prin. Invest.: E SMITH
Prin. Invest.: NONE
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6325 **FLORIDA STATE UNIVERSITY** **3760**
 ADVANCED DATA ASSIMILATION INTO OCEAN CIRCULATION MODELS
 DRIVEN BY NSCAT DATA & ENSO IMPACTS ON NORTH
 10/07/1997 - 08/31/1999 FY99: \$0 Total: \$230,000
Prin. Invest.: J O'BRIEN
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6665 **FLORIDA STATE UNIVERSITY** **3761**
 COMBINING SSM/I, T/T2 AND GOES MEASUREMENTS FOR A SATELLITE-
 BASED ATMOSPHERIC WATER BUDGET OF
 11/25/1997 - 11/30/1999 FY99: \$0 Total: \$325,000
Prin. Invest.: E A SMITH
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7254 **FLORIDA STATE UNIVERSITY** **3762**
 ANOMALOUS HEAT BUDGETS IN THE INTERIOR PACIFIC OCEAN ON SEA-
 SONAL-TO-INTERANNUAL TIMESCALES AND
 05/14/1998 - 04/30/2001 FY99: \$36,000 Total: \$87,500
Prin. Invest.: J J O'BRIEN
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 33 - OCEANOGRAPHY

NAG 5 7302 **FLORIDA STATE UNIVERSITY** **3763**
 RETRIEVAL OF SURFACE RADIATION FLUXES OVER BOREAS SNOW
 REGIME FROM GOES 8 IMAGERY FOR APPLICATIONS
 05/04/1998 - 04/30/2000 FY99: \$57,333 Total: \$136,735
Prin. Invest.: E A SMITH
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7577 **FLORIDA STATE UNIVERSITY** **3764**
 "REDUCTION AND ANALYSIS OF LEO SATELLITE MAGNETIC FIELD
 DATA" (SENH98-0077)
 08/04/1998 - 01/31/2000 FY99: \$65,000 Total: \$98,000
Prin. Invest.: J C CAIN
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7618 **FLORIDA STATE UNIVERSITY** **3765**
 ANNUAL MARINE PRIMARY PRODUCTION ALGORITHM DEVELOPMENT
 AND APPLICATION TO MODIS DATA
 09/08/1998 - 07/31/2000 FY99: \$0 Total: \$104,017
Prin. Invest.: R L IVERSON
Tech. Officer: GSFC/W ESAIAS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 7630 **FLORIDA STATE UNIVERSITY** **3766**
 ZONAL PROPAGATION OF NONLINEAR OCEANIC ANOMALIES
 08/10/1998 - 09/30/2000 FY99: \$40,000 Total: \$180,000
Prin. Invest.: W DEWAR
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7648 **FLORIDA STATE UNIVERSITY** **3767**
 "THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PRE-
 DICT MOSQUITO-BORNE ENCEPHALITIS TRANSMISSION
 09/01/1998 - 12/31/1999 FY99: \$6,000 Total: \$36,000
Prin. Invest.: J O'BRIEN
Tech. Officer: GSFC/B W MESSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7718 **FLORIDA STATE UNIVERSITY** **3768**
 VALIDATION OF TRMM LEVEL-3 PRECIPITATION DATA OVER AFRICA
 10/27/1998 - 10/31/1999 FY99: \$86,199 Total: \$86,199
Prin. Invest.: S E NICHOLSON
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8284 **FLORIDA STATE UNIVERSITY** **3769**
 ANALYSIS OF THE CRUSTAL MAGNETIC FIELD OF MARS
 02/19/1999 - 02/29/2000 FY99: \$42,200 Total: \$42,200
Prin. Invest.: J C CAIN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8291 **FLORIDA STATE UNIVERSITY** **3770**
 THERMODYNAMICS IN LAYERED MODELS
 02/25/1999 - 02/29/2000 FY99: \$137,167 Total: \$137,167
Prin. Invest.: W WEWAR
Tech. Officer: GSFC/M RIENECKER
CASE Category: 33 - OCEANOGRAPHY

NAG 5 8327 **FLORIDA STATE UNIVERSITY** **3771**
 ADVANCED DATA ASSIMILATION INTO OCEAN CIRCULATION MODELS
 DRIVEN BY NSCAT DATA & ENSO IMPACTS NORTH
 04/28/1999 - 04/30/2000 FY99: \$185,000 Total: \$185,000
Prin. Invest.: J J O'BRIEN
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8598 **FLORIDA STATE UNIVERSITY** **3772**
 THE IMPACT OF VEGETATION CHANGES IN THE SAHEL ON REGIONAL
 SCALE HYDROLOGY
 06/14/1999 - 06/30/2000 FY99: \$50,250 Total: \$50,250
Prin. Invest.: S E NICHOLSON
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8647 **FLORIDA STATE UNIVERSITY** **3773**
 "STUDY OF THE EVOLUTION OF PRECIPITATION AND CLOUD STRUC-
 TURES DURING THE LIFE CYCLE ... TRMM AND IS
 07/19/1999 - 07/31/2000 FY99: \$38,000 Total: \$38,000
Prin. Invest.: G LIU
Tech. Officer: GSFC/W B ROSSOW
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1163 **FLORIDA STATE UNIVERSITY** **3774**
 ANALYSIS OF ELECTROPHORETIC TRANSPORT
 08/30/1995 - 08/29/1999 FY99: \$0 Total: \$529,635
Prin. Invest.: B R LOCKE
Tech. Officer: MSFC/P H RHODES, MSFC/T Y MILLER
CASE Category: 43 - CHEMICAL ENGR

NAG 8 1199 **FLORIDA STATE UNIVERSITY** **3775**
 IMPACT STUDIES OF NEWER DATA SETS ON VERY HIGH RE- SOLUTION
 GLOBAL FORECAST
 11/13/1995 - 11/12/1998 FY99: \$0 Total: \$215,943
Prin. Invest.: T N KRISHNAMURTI
Tech. Officer: MSFC/D FITZJARRALD, MSFC/J ROTHERMEL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1537 **FLORIDA STATE UNIVERSITY** **3776**
 IMPACT STUDIES OF NEWER DATA SETS (COMEX-3) ON VERY HIGH RES-
 OLUTION GLOBAL FORECASTS
 06/05/1998 - 06/04/2000 FY99: \$128,392 Total: \$198,037
Prin. Invest.: T N KRISHNAMURTI
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 985 **FLORIDA STATE UNIVERSITY** **3777**
 DATA ASSIMUL. IN OCEAN CIRCULATION
 11/01/1986 - 09/30/1998 FY99: \$0 Total: \$1,518,000
Prin. Invest.: J J O'BRIEN
Tech. Officer: HQ/G S LAGERLOEF, HQ/W S WILSON
CASE Category: 33 - OCEANOGRAPHY

NAGW 3495 **FLORIDA STATE UNIVERSITY** **3778**
 NAGW-3495/FLORIDA STATE UNIV/MARINE PHYTOPLANKTON ANNUAL
 CARBON PRODUCTION, NEW NITROGEN PRODUCTION
 04/22/1993 - 05/31/1998 FY99: \$0 Total: \$180,000
Prin. Invest.: R IVERSON
Tech. Officer: HQ/R E MURPHY, HQ/D M BUTLER
CASE Category: 33 - OCEANOGRAPHY

NAGW 4044 **FLORIDA STATE UNIVERSITY** **3779**
 SIBERIAN PERMAFROST: APPLICATIONS TO MARS
 08/22/1994 - 05/31/1998 FY99: -\$589 Total: \$343,823
Prin. Invest.: E I FRIEDMANN
Tech. Officer: HQ/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 4883 **FLORIDA STATE UNIVERSITY** **3780**
 STUDIES OF VARIABLE CLIMATE PROCESSES
 12/11/1995 - 03/31/1998 FY99: \$0 Total: \$240,000
Prin. Invest.: W K DEWAR
Tech. Officer: HQ/N MAYNARD
CASE Category: 33 - OCEANOGRAPHY

NCC 1 308 **FLORIDA STATE UNIVERSITY** **3781**
 NUMERICAL SIMULATIONS AND DIAGNOSTIC STUDIES OF METEOROLOGICAL
 CONDITIONS DURING PEM-TROPICS B
 07/21/1998 - 07/31/2001 FY99: \$32,000 Total: \$118,000
Prin. Invest.: H E FUELBERG
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 292 **FLORIDA STATE UNIVERSITY** **3782**
 HIGH RESOLUTION CARBON EXCHANGE OVER LARGE-SCALE A MAZONIA
 BASED ON MODELING AND GOES SATELLITE
 06/25/1998 - 12/31/1999 FY99: \$89,367 Total: \$157,467
Prin. Invest.: E A SMITH
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 8 158 **FLORIDA STATE UNIVERSITY** **3783**
 SOUTHEAST REGIONAL EARTH SCIENCE APPLICATIONS CENTER
 09/25/1998 - 09/24/1999 FY99: \$40,000 Total: \$90,000
Prin. Invest.: J J O'BRIEN
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30116 **FLORIDA STATE UNIVERSITY** **3784**
 SATELLITE DERIVED LAND SURFACE TEMPERATURE & ADJOI NT MOD-
 ELING TECHNIQUES TO IMPROVE A SPATIAL BIOSP
 10/01/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: E SMITH
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30158 **FLORIDA STATE UNIVERSITY** **3785**
 DYNAMICS AND VARIABILITY OF THE NORTH HAWAIIAN RID GE CURRENT
 FROM SATELLITE ALTIMETRY AND AN
 08/28/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J J O'BRIEN, LEONARDI
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30164 **FLORIDA STATE UNIVERSITY** **3786**
 NONLINEAR EXCHANGE PROCESSES BETWEEN THE PACIFIC AND THE
 INDIAN OCEAN
 08/31/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: D NOF, H SIMMONS
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30186 **FLORIDA STATE UNIVERSITY** **3787**
 THE WATER BALANCE OF EASTERN AFRICAN GREAT LAKES STUDENT:
 XANGANG YIN
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: S E NICHOLSON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30191 **FLORIDA STATE UNIVERSITY** **3788**
 INTER- AND INTRA-ANNUAL VARIABILITY OF THE NORTH AMERICAN MON-
 SOON: A NUMERICAL MODELING STUDY/STU
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: T KRISHNAMURTI
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1917 **THE UNIVERSITY OF CENTRAL FLORIDA** **3789**
 A LOW LOSS MICROSTRIP ANTENNA FOR RADIOMETRIC APPLICATIONS
 04/24/1997 - 12/31/1999 FY99: \$25,000 Total: \$126,757
Prin. Invest.: C G CHRISTODOULOU, P F WAHID
Tech. Officer: LARC/M C BAILEY
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 6528 **THE UNIVERSITY OF CENTRAL FLORIDA** **3790**
 DETECTING AND MODELING SPATIAL CANOPY PROPERTIES O F FOR-
 ESTED LANDSCAPES
 12/06/1997 - 12/31/1999 FY99: \$0 Total: \$82,343
Prin. Invest.: J WEISHAMPEL
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7068 **THE UNIVERSITY OF CENTRAL FLORIDA** **3791**
 TROPICAL RAINFALL MEASURING MISSION (TRMM) "GROUND TRUTH" IN
 CENTRAL AND SOUTH FLORIDA
 03/02/1998 - 02/29/2000 FY99: \$187,580 Total: \$370,528
Prin. Invest.: W JONES
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8265 **THE UNIVERSITY OF CENTRAL FLORIDA** **3792**
 INVESTIGATIONS OF MARTIAN IMPACT CRATER MORPHOLOGIES AND
 MORPHOMETRIES
 02/23/1999 - 04/30/2000 FY99: \$45,700 Total: \$45,700
Prin. Invest.: N G BARLOW
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 8 1426 **THE UNIVERSITY OF CENTRAL FLORIDA** **3793**
 R/S OBJECTIVE OPERATIONAL UTILIZATION OF SATELLITE MICROWAVE
 SCATTEROMETER OBSERVATION OF TROPICAL
 01/07/1998 - 12/31/1999 FY99: \$59,895 Total: \$134,859
Prin. Invest.: W L JONES
Tech. Officer: MSFC/J M SIMONDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 5202 **THE UNIVERSITY OF CENTRAL FLORIDA** **3794**
 DETECTING AND MODELING SPATIAL CANOPY PROPERTIES O F FOR-
 ESTED LANDSCAPES
 10/03/1996 - 06/30/1998 FY99: \$0 Total: \$161,370
Prin. Invest.: J F WEISHAMPEL
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG10 141 **THE UNIVERSITY OF CENTRAL FLORIDA** **3795**
 VARIABLE FORM DATA COLLECTION AND ANALYSIS
 06/21/1994 - 06/19/1999 FY99: \$0 Total: \$198,528
Prin. Invest.: W W SWART
Tech. Officer: KSC/T BARTH
CASE Category: 22 - COMPUTER SCIENCE

NAG10 147 **THE UNIVERSITY OF CENTRAL FLORIDA** **3796**
 DEVELOPMENT OF ADVANCED LIFE SUPPORT AUTOMATED REMOTE
 MANIPULATED (ALSARM)
 11/10/1994 - 11/14/1999 FY99: \$0 Total: \$216,660
Prin. Invest.: R W JOHNSON
Tech. Officer: KSC/J SAGER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG10 162 **THE UNIVERSITY OF CENTRAL FLORIDA** **3797**
 ENHANCEMENT OF IN-SITU ZERO-VALENT METAL TREATMENT OF CON-
 TAMINATED GROUNDWATER
 06/14/1995 - 09/30/1998 FY99: -\$170 Total: \$169,940
Prin. Invest.: C A CLAUSEN, D R REINHART
Tech. Officer: KSC/J RYAN
CASE Category: 43 - CHEMICAL ENGR

NAG10 163 **THE UNIVERSITY OF CENTRAL FLORIDA** **3798**
 CONCRETE REBAR CORROSION PROTECTION
 06/05/1995 - 06/08/1998 FY99: -\$3,149 Total: \$96,861
Prin. Invest.: V H DESAI
Tech. Officer: KSC/R LEE
CASE Category: 41 - AERONAUTICAL ENGR

NAG10 198 **THE UNIVERSITY OF CENTRAL FLORIDA** **3799**
 PERMEABLE REACTIVE WALL FIELD SCALE APPLICATION PHASE II AND IV
 09/30/1996 - 12/30/1999 FY99: \$0 Total: \$549,016
Prin. Invest.: D REINHART
Tech. Officer: KSC/M COLLINS
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG10 207 **THE UNIVERSITY OF CENTRAL FLORIDA** **3800**
 NASA/ASEE SUMMER FACULTY FELLOWSHIP RESEARCH PROGRAM
 03/21/1997 - 12/31/1998 FY99: \$0 Total: \$366,000
Prin. Invest.: E R HOSLER
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 49 - ENGINEERING, OTHER

NAG10 215 **THE UNIVERSITY OF CENTRAL FLORIDA** **3801**
 DEVELOPEL ELECTRON KINETIC TECHNIQUE
 04/17/1997 - 05/01/2000 FY99: \$0 Total: \$225,000
Prin. Invest.: C GEIGER
Tech. Officer: KSC/J QUINN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG10 227 **THE UNIVERSITY OF CENTRAL FLORIDA** **3802**
 APPLIED TRAINING PROJECT MGMT FRAMEWORK FOR ORGANIZATIONAL
 TRANSITIONS
 08/04/1997 - 05/31/1999 FY99: \$0 Total: \$126,784
Prin. Invest.: T KOTNOUR
Tech. Officer: KSC/S BARTON
CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NAG10 228 THE UNIVERSITY OF CENTRAL FLORIDA 3803
 USING WATER TO REPLACE CFC-113 IN NVR VALIDATION TESTS ON
 LARGE-SCALE SPACECRAFT HARDWARE
 06/13/1997 - 12/31/1998 FY99: -\$4,484 Total: \$40,516
Prin. Invest.: C CLAUSEN, III
Tech. Officer: KSC/O MELENDEZ
CASE Category: 49 - ENGINEERING, OTHER

NAG10 230 THE UNIVERSITY OF CENTRAL FLORIDA 3804
 AEROSPACE RESEARCH & EDUCATIONAL NEEDS & ACTIVITIES IN THE
 STATE OF FL
 09/17/1997 - 05/30/1999 FY99: \$0 Total: \$67,514
Prin. Invest.: J G KOTNOUR
Tech. Officer: KSC/O MCLENDEZ
CASE Category: 41 - AERONAUTICAL ENGR

NAG10 240 THE UNIVERSITY OF CENTRAL FLORIDA 3805
 NASA PM EMISSIONS STUDY
 02/01/1998 - 02/01/2000 FY99: \$67,578 Total: \$173,208
Prin. Invest.: C COOPER, P.E.
Tech. Officer: KSC/D R DELA PASCUA
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG10 244 THE UNIVERSITY OF CENTRAL FLORIDA 3806
 NASA - ASEE SUMMER FACULTY FELLOWSHIP PROGRAM
 05/26/1998 - 12/31/1999 FY99: \$0 Total: \$339,500
Prin. Invest.: R HOSLER
Tech. Officer: KSC/G BUCHINGHAM
CASE Category: 49 - ENGINEERING, OTHER

NAG10 258 THE UNIVERSITY OF CENTRAL FLORIDA 3807
 NASA/UCF SPACE SCHOLARS PROGRAM
 05/01/1999 - 06/30/2000 FY99: \$46,875 Total: \$46,875
Prin. Invest.: J SMITH
Tech. Officer: KSC/R MCKINNEY
CASE Category: 49 - ENGINEERING, OTHER

NAG10 260 THE UNIVERSITY OF CENTRAL FLORIDA 3808
 NASA-ASEE SUMMER FACULTY FELLOWSHIP PROGRAM
 04/16/1999 - 12/31/1999 FY99: \$321,500 Total: \$321,500
Prin. Invest.: E R HOSLER
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 49 - ENGINEERING, OTHER

NAG13 98011 THE UNIVERSITY OF CENTRAL FLORIDA 3809
 NON-INTRUSIVE MEASUREMENTS OF PRESSURE AND OTHER FLOW VARI-
 ABLES
 07/17/1998 - 10/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: J S KAPAT
Tech. Officer: KSC/B ST. CYR
CASE Category: 41 - AERONAUTICAL ENGR

NCA10 35 THE UNIVERSITY OF CENTRAL FLORIDA 3810
 JOINT SPONSORED RESEARCH AGREEMENT THE VISION SPACEPORT
 PROJECT
 09/15/1998 - 12/31/1999 FY99: \$179,257 Total: \$264,230
Prin. Invest.: R HOFER
Tech. Officer: KSC/C M CLESKEY, KSC/C D SHELTON
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 2 1033 THE UNIVERSITY OF CENTRAL FLORIDA 3811
 CRM ASSESSMENT: DETERMINING THE GENERALIZABILITY OF ROTOR
 CALIBRATION TRAINING
 04/22/1998 - 12/31/1998 FY99: -\$91,194 Total: \$10,133
Prin. Invest.: D BAKER
Tech. Officer: ARC/R K DISMULLES
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 3 712 THE UNIVERSITY OF CENTRAL FLORIDA 3812
 ULTRA-LIGHT-WEIGHT, RADIATION-RESISTANT, THIN-FILM SOLAR CELLS
 FOR SPACE ELECTRIC POWER
 06/10/1999 - 01/31/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: N G DHERE
Tech. Officer: GRC/A F HEPP
CASE Category: 13 - PHYSICS

NCC10 20 THE UNIVERSITY OF CENTRAL FLORIDA 3813
 PILOT SCALE EVALUATION OF NEW TECH CONTROL NOX EMISSIONS AT
 KSC
 05/01/1996 - 03/31/2000 FY99: \$139,997 Total: \$437,222
Prin. Invest.: C D COOPER, C A CLAUSEN
Tech. Officer: KSC/J QUINN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 51402 THE UNIVERSITY OF CENTRAL FLORIDA 3814
 GSRP
 07/31/1995 - 08/20/1998 FY99: -\$1,250 Total: \$42,750
Prin. Invest.: D MOSHELL
Tech. Officer: HQ/D HOLLAND
CASE Category: 22 - COMPUTER SCIENCE

NGT 90059 THE UNIVERSITY OF CENTRAL FLORIDA 3815
 SUMMER PROGRAM FOR ACADEMIC CAREERS IN ENGINEERING (SPACE)
 03/31/1992 - 09/30/1998 FY99: -\$11,509 Total: \$517,162
Prin. Invest.: S RICE, J A SMITH
Tech. Officer: HQ/B WHITE
CASE Category: 49 - ENGINEERING, OTHER

NGT 90159 THE UNIVERSITY OF CENTRAL FLORIDA 3816
 NASA KSC/UCF SPACE SCHOLARS PROGRAM
 05/20/1993 - 09/30/1998 FY99: \$0 Total: \$345,532
Prin. Invest.: J A SMITH
Tech. Officer: HQ/J M MACKALL
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 50128 THE UNIVERSITY OF CENTRAL FLORIDA 3817
 CONSTRAINED PHYSICAL MODELING IN VIRTUAL ENVIRONME
 09/09/1997 - 08/14/1998 FY99: -\$5,352 Total: \$16,648
Prin. Invest.: C PARSONS
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT10 52606 THE UNIVERSITY OF CENTRAL FLORIDA 3818
 GRADUATE STUDENTS RESEARCHERS PROGRAM
 04/18/1996 - 06/30/1998 FY99: \$0 Total: \$44,000
Prin. Invest.: M F SIEMER
Tech. Officer: KSC/R WERLINK
CASE Category: 12 - CHEMISTRY

NGT10 52615 THE UNIVERSITY OF CENTRAL FLORIDA 3819
EFFECTIVE ORGANIZATIONAL PERFORMANCE IMPROVEMENT TOOLS
USED IN AVIATION & AEROSPACE
07/14/1998 - 07/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: T KOTNOUR
Tech. Officer: KSC/L GOSPER
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 1474 UNIVERSITY OF FLORIDA 3820
A STUDY OF THE INTERACTION OF CONVECTION WITH SOLIDIFICATION
01/12/1993 - 01/10/2000 FY99: \$0 Total: \$506,837
Prin. Invest.: R NARAYANAN, R NARAYANAN
Tech. Officer: LARC/W J DEBWAM
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 1 1669 UNIVERSITY OF FLORIDA 3821
VARIABLE COMPLEXITY OPTIMIZATION OF COMPOSITE STRUCTURES
01/17/1995 - 01/16/1998 FY99: \$0 Total: \$420,182
Prin. Invest.: R T HAFTKA
Tech. Officer: LARC/J H STARNES, LARC/C J CAMARDA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1808 UNIVERSITY OF FLORIDA 3822
VARIABLE COMPLEXITY STRUCTURAL OPTIMIZATION OF LAUNCH
VEHICLES
02/07/1996 - 02/06/1999 FY99: \$0 Total: \$104,862
Prin. Invest.: R T HAFTKA
Tech. Officer: LARC/C J CAMARDA, LARC/T F JOHNSON
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 1 1809 UNIVERSITY OF FLORIDA 3823
DEVELOPMENT OF TEMPERATURE SENSITIVE PAINTS FOR WIND TUNNEL
03/04/1996 - 11/30/1999 FY99: \$75,000 Total: \$300,213
Prin. Invest.: K S SCHANZE
Tech. Officer: LARC/B T UPCHURCH, LARC/M MITCHELL
CASE Category: 12 - CHEMISTRY

NAG 1 1887 UNIVERSITY OF FLORIDA 3824
DAMAGE TOLERANCE OF SANDWICH PLATES WITH DEBONDED FACE
SHEETS
01/27/1997 - 10/31/1998 FY99: \$0 Total: \$95,969
Prin. Invest.: B V SANKAR
Tech. Officer: LARC/J R CRUZ
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2000 UNIVERSITY OF FLORIDA 3825
VARIABLE COMPLEXITY OPTIMIZATION OF COMPOSITE STRUCTURES
01/28/1998 - 01/27/1999 FY99: \$20,951 Total: \$125,951
Prin. Invest.: R T HAFTKA
Tech. Officer: LARC/J H STARNES, LARC/C A ROSE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2060 UNIVERSITY OF FLORIDA 3826
WAVELET AND MULTIREOLUTION ANALYSIS FOR FINITE ELEMENT NET-
WORKING PARADIGMS
06/04/1998 - 04/30/2001 FY99: \$0 Total: \$20,000
Prin. Invest.: A L KURDILA, NONE
Tech. Officer: LARC/J M HOUSNER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2087 UNIVERSITY OF FLORIDA 3827
VARIABLE FIXED FREQUENCY MICROWAVE PROCESSING OF MATERIALS
07/14/1998 - 03/31/1999 FY99: \$0 Total: \$20,000
Prin. Invest.: D E CLARK
Tech. Officer: LARC/C R REGAN
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 2092 UNIVERSITY OF FLORIDA 3828
DEV OF AN INNOVATIVE ALGORITHM FOR AERODYNAMICS- STRUCTURE
INTERACTION USING LATTICE BOLTZMANN METH
07/31/1998 - 07/14/2000 FY99: \$97,500 Total: \$122,500
Prin. Invest.: R MEI, W SHYY, L LUO
Tech. Officer: LARC/D H RUDY, LARC/R T BIEDRON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2110 UNIVERSITY OF FLORIDA 3829
VARIABLE COMPLEXITY STRUCTURAL OPTIMIZATION OF SHELLS
10/13/1998 - 04/15/1999 FY99: \$32,928 Total: \$32,928
Prin. Invest.: R T HAFTKA
Tech. Officer: LARC/T F JOHNSON, LARC/S J SCOTTI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2133 UNIVERSITY OF FLORIDA 3830
MEMS-BASED ACOUSTIC ARRAY TECHNOLOGY MY 1/3
02/11/1999 - 12/31/2001 FY99: \$125,919 Total: \$125,919
Prin. Invest.: M SHEPLAK
Tech. Officer: LARC/R R ANTELIFF
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2161 UNIVERSITY OF FLORIDA 3831
CHEMICALLY TAILORED PARTICLES FOR WIND-TUNNEL SEEDING
03/15/1999 - 12/31/2000 FY99: \$50,003 Total: \$50,003
Prin. Invest.: K S SCHANZE
Tech. Officer: LARC/B T UPCHURCH, LARC/C J OBARA
CASE Category: 12 - CHEMISTRY

NAG 1 2177 UNIVERSITY OF FLORIDA 3832
VARIABLE COMPLEXITY OPTIMIZATION OF COMPOSITE STRUCTURES
04/02/1999 - 01/27/2002 FY99: \$105,026 Total: \$105,026
Prin. Invest.: R T HAFTKA
Tech. Officer: LARC/J H STARNES, JR.
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2188 UNIVERSITY OF FLORIDA 3833
INFORMATION THEORETIC EXTRACTION OF ELECTROENCEPHALOGRAPH
(EEG) FEATURES FOR MONITORING SUBJECT ATTENTION
04/28/1999 - 09/30/2000 FY99: \$59,926 Total: \$59,926
Prin. Invest.: J C PRINCIPI
Prin. Invest.: NONE
Tech. Officer: LARC/M A MOTTER, LARC/A T POPE
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 2198 UNIVERSITY OF FLORIDA 3834
REDUCED ORDER MODELS VIA MULTIREOLUTION ANALYSIS FOR CON-
TROL OF FLOW
05/19/1999 - 02/18/2002 FY99: \$50,900 Total: \$50,900
Prin. Invest.: A J KURDILA
Tech. Officer: LARC/W A SILVA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2232 UNIVERSITY OF FLORIDA 3835
 DAMAGE TOLERANCE OF SANDWICH PLATES WITH DEBONDED FACE SHEETS
 09/02/1999 – 06/30/2000 FY99: \$31,563 Total: \$31,563
Prin. Invest.: B V SANKAR
Tech. Officer: LARC/D R AMBUR
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 667 UNIVERSITY OF FLORIDA 3836
 "CONTINUED TESTING OF THE GALILEO LIGHTNING AND RADIO EMISSION DETECTOR"
 10/09/1990 – 03/31/2000 FY99: \$0 Total: \$285,715
Prin. Invest.: M A UMAN
Tech. Officer: ARC/L E LASHER, ARC/R E YOUNG
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 1179 UNIVERSITY OF FLORIDA 3837
 DESIGN SPACE EXPLORATION FOR MDO ON A TERAFLOP COMPUTER
 02/26/1998 – 01/31/2000 FY99: \$34,769 Total: \$68,562
Prin. Invest.: R T HAITKA
Tech. Officer: ARC/G H KLOPTER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 2835 UNIVERSITY OF FLORIDA 3838
 PROBING LARGE SCALE STRUCTURE: THE THREE-POINT FUNCTION
 12/12/1994 – 12/14/1997 FY99: -\$18,104 Total: \$131,896
Prin. Invest.: J N FRY
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3343 UNIVERSITY OF FLORIDA 3839
 CALIBRATION AND ASTROPHYSICS WITH ISO
 08/09/1996 – 08/14/1999 FY99: \$0 Total: \$475,618
Prin. Invest.: C M TELESKO
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3772 UNIVERSITY OF FLORIDA 3840
 HUMAN DIMENSIONS OF DEFORESTATION & REGROWTH IN THE INTEGRATING DATA FROM SATELLITES, DEMOGRAPHIC CENSUS
 03/11/1997 – 02/28/2000 FY99: \$0 Total: \$536,368
Prin. Invest.: D WOOD
Tech. Officer: GSFC/N MAYNARD
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3936 UNIVERSITY OF FLORIDA 3841
 RELATIVISTIC AND GRAVITATIONAL PHYSICS
 04/04/1997 – 12/31/1998 FY99: \$0 Total: \$109,000
Prin. Invest.: P R IPSER
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 4036 UNIVERSITY OF FLORIDA 3842
 COMETS: A COORDINATED GROUND AND SPACE BASED INFRA-TAXONOMIC CLASSES
 04/09/1997 – 11/30/1998 FY99: -\$16,303 Total: \$72,055
Prin. Invest.: D CAMPINS
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 – ASTRONOMY

NAG 5 4204 UNIVERSITY OF FLORIDA 3843
 A COORDINATED GROUND AND SPACE BASED INFRARED STUDY (C/1995 01)
 03/26/1997 – 03/14/1999 FY99: \$0 Total: \$41,680
Prin. Invest.: D CAMPINS
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 – ASTRONOMY

NAG 5 4287 UNIVERSITY OF FLORIDA 3844
 CARBON SPECIES AS POSSIBLE CARRIERS OF THE URS
 04/29/1997 – 12/31/1999 FY99: \$34,833 Total: \$152,000
Prin. Invest.: D T VALA
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 – ASTRONOMY

NAG 5 4531 UNIVERSITY OF FLORIDA 3845
 DYNAMICS OF SOLAR SYSTEM DUST
 05/08/1997 – 02/29/2000 FY99: \$85,300 Total: \$253,394
Prin. Invest.: D F DERMOTT
Tech. Officer: HQ/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4547 UNIVERSITY OF FLORIDA 3846
 PLANETARY AEROSOL MONITOR/INTEGRATED DUST ANALYZER
 05/06/1997 – 05/31/2000 FY99: \$85,719 Total: \$282,390
Prin. Invest.: D GUSTAFSON
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 – MULTI-INTERDISCIPL, OTHER

NAG 5 4587 UNIVERSITY OF FLORIDA 3847
 A NOVEL METHOD FOR AIR REVITALIZATION: CO₂ REMOVAL PULSATING DEVICE
 05/20/1997 – 02/28/1999 FY99: \$0 Total: \$65,994
Prin. Invest.: R NARAYANAN
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 4996 UNIVERSITY OF FLORIDA 3848
 DURATION OF COMETARY ACTIVITY ON THE ASTEROID PHAE
 07/24/1997 – 04/30/1998 FY99: -\$1,789 Total: \$38,211
Prin. Invest.: D GUSTAFSON
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 6378 UNIVERSITY OF FLORIDA 3849
 OPTICAL PROPERTIES OF IRREGULAR DUST PARTICLES: EXPERIMENT AND THEORY
 10/08/1997 – 04/30/2000 FY99: \$68,050 Total: \$169,554
Prin. Invest.: D GUSTAFSON
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6632 UNIVERSITY OF FLORIDA 3850
 MAXIMUM LIKELIHOOD ESTIMATION OF GROUND ELEVATION USING LASER-ALTIMETRY
 12/12/1997 – 11/30/1999 FY99: \$0 Total: \$48,696
Prin. Invest.: J ANDERSON
Tech. Officer: GSFC/R KNOX
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6652 UNIVERSITY OF FLORIDA 3851
 UNIV. OF FLORIDA LAB. FOR ADVANCED APPLIC. OF REMOTE SENSING
 AND GIS INTEGRATION AND ANALYSIS TO R
 12/15/1997 - 11/30/1999 FY99: \$0 Total: \$94,952
Prin. Invest.: M BINFORD
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6751 UNIVERSITY OF FLORIDA 3852
 TOWARDS A COMPLETE INVENTORY OF STAR AND PLANET FORMATION
 ACTIVITY IN NEARBY MOLECULAR CLOUDS
 01/12/1998 - 01/14/2000 FY99: \$69,900 Total: \$139,800
Prin. Invest.: E LADA
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7559 UNIVERSITY OF FLORIDA 3853
 NITROGEN AND PHOSPHORUS DYNAMICS IN FORESTS AND CONVERTED
 FOREST SITES IN THE AMAZON BASIN: A REV
 06/26/1998 - 12/31/1999 FY99: \$2,900 Total: \$19,008
Prin. Invest.: H L GHOLZ
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7664 UNIVERSITY OF FLORIDA 3854
 THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PRE-
 DICT MOSQUITO-BORNE ENCEPHALITIS TRANSMIS
 09/09/1998 - 09/30/2000 FY99: \$6,000 Total: \$36,000
Prin. Invest.: J F DAY
Tech. Officer: GSFC/B W MESSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7729 UNIVERSITY OF FLORIDA 3855
 GLOBAL PLANARIZATION OF DIAMOND — GOAL IS TO IMPROVE FLAT-
 NESS OF CVD DIAMOND TO 0.1 MICROMETER
 09/29/1998 - 09/30/1999 FY99: \$0 Total: \$10,000
Prin. Invest.: R SINGH
Tech. Officer: GSFC/J C BRASUNAS
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 8472 UNIVERSITY OF FLORIDA 3856
 GROUND-BASED MID-IR IMAGING AND SPECTROSCOPY OF VEG A-TYPE
 DISKS
 04/16/1999 - 04/14/2000 FY99: \$25,000 Total: \$25,000
Prin. Invest.: C TELESCO
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8522 UNIVERSITY OF FLORIDA 3857
 CHEMICAL ABUNDANCES AND EVOLUTION IN QUASARS AND ACTIVE
 GALACTIC NUCLEI
 05/12/1999 - 05/14/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: F W HAMANN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 8 1243 UNIVERSITY OF FLORIDA 3858
 FOR RESEARCH ENTITLED AN ELECTROMECHANICAL METHOD TO VISU-
 ALIZE FLOW AND MEASURE DIFFUSIVITY
 05/28/1996 - 05/27/2000 FY99: \$150,000 Total: \$525,000
Prin. Invest.: T J ANDERSON, R NARAYANAN
Tech. Officer: MSFC/P R DOTY, MSFC/R POWER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 8 1244 UNIVERSITY OF FLORIDA 3859
 THE FEATURES OF SELF-ASSEMBLING ORGANIC BILAYERS
 05/01/1996 - 04/30/2000 FY99: \$70,000 Total: \$239,167
Prin. Invest.: D R TALHAM, J H ADAIR
Tech. Officer: MSFC/P DOTY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1251 UNIVERSITY OF FLORIDA 3860
 R/S " CONFINEMENT AND PROPULSION CHARACTERISTICS OF THE GAS-
 DYNAMIC MIRROR FUSION ROCKET"
 12/23/1996 - 12/31/1999 FY99: \$45,000 Total: \$230,000
Prin. Invest.: S ANGHZIE
Tech. Officer: MSFC/W J EMRICH, JR.
CASE Category: 47 - METAL & MATERIALS ENGR

NAGW 4640 UNIVERSITY OF FLORIDA 3861
 HUMAN DIMENSIONS OF DEFORESTATION AND REGROWTH IN THE BRA-
 ZILIAN AMAZON
 07/11/1995 - 09/30/1997 FY99: \$10,556 Total: \$117,897
Prin. Invest.: S SANDERSON, D SKOLE, C WOOD
Tech. Officer: HQ/N MAYNARD, HQ/R C HARRISS
CASE Category: 79 - SOCIAL SCIENCE, OTHER

NAG10 145 UNIVERSITY OF FLORIDA 3862
 GENETICALLY ENGINEERED PLANT BIOMONITOR IN MICRO- GRAVITY
 09/21/1994 - 03/31/2000 FY99: \$124,677 Total: \$611,208
Prin. Invest.: R J FERL
Tech. Officer: KSC/W M KNOTT
CASE Category: 55 - AGRICULTURE

NAG10 222 UNIVERSITY OF FLORIDA 3863
 PROGRAM TO SUPPORT AND STIMULATE STUDENT'S EDUCATIONAL
 ACTIVITIES AND EXPERIENCES
 09/09/1997 - 09/30/1998 FY99: -\$26,700 Total: \$350,585
Prin. Invest.: H CAMPINS
Tech. Officer: KSC/R MCKINNEY
CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NAG10 232 UNIVERSITY OF FLORIDA 3864
 CORPORATE MEMORY AND SPACECRAFT COURSE DEVELOPMENT
 09/22/1997 - 09/22/1998 FY99: -\$1,670 Total: \$128,961
Prin. Invest.: H CAMPINS, PH.D
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 261 UNIVERSITY OF FLORIDA 3865
 THERMAL MODELING FOR MAGNETICALLY COUPLED PUMP IN A CRYO-
 GENIC ENVIRONMENT
 04/13/1999 - 09/30/1999 FY99: \$40,000 Total: \$40,000
Prin. Invest.: W SHYY
Tech. Officer: KSC/A RODRIGUEZ
CASE Category: 46 - MECHANICAL ENGR

NAS 3 26314 UNIVERSITY OF FLORIDA 3866
 ULTRA HIGH TEMPERATURE REACTOR AND ENERGY CONVERSION
 05/30/1991 - 05/07/1999 FY99: \$0 Total: \$2,748,999
Prin. Invest.: N J DIAZ, F ANGHAI, E T DUGAN
Tech. Officer: GRC/H S BLOOMFIELD
CASE Category: 13 - PHYSICS

NAS 8 97110 UNIVERSITY OF FLORIDA 3867
 OPERATION AND MANAGEMENT FOR THE NASA TECH TRANSFER CENTER
 02/02/1997 - 12/31/1999 FY99: \$1,796,037 Total: \$4,275,114
Prin. Invest.: J R THORNTON
Tech. Officer: MSFC/J POE
CASE Category: 42 - ASTRONAUTICAL ENGR

NAS10 96004 UNIVERSITY OF FLORIDA 3868
 ON-SITE MEDICAL SUPPORT DURING STS LAUNCH & LANDING OPERATIONS
 09/13/1996 - 09/30/2000 FY99: \$55,028 Total: \$276,505
Prin. Invest.: A H NEIMS
Tech. Officer: KSC/D A TIPTON
CASE Category: 56 - MEDICAL

NCC 1 268 UNIVERSITY OF FLORIDA 3869
 ADJOINT TECHNIQUES FOR TOPOLOGY OPTIMIZATION OF STRUCTURES UNDER DAMAGE CONDITIONS
 11/24/1997 - 11/23/1999 FY99: \$66,944 Total: \$132,139
Prin. Invest.: R T HAFTKA, M A AKGUN
Tech. Officer: LARC/K C WU, LARC/S J SCOTTI
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5246 UNIVERSITY OF FLORIDA 3870
 OPTIMIZATION OF INFRARED DETECTOR ARRAYS FOR AIRBORNE ASTRONOMY
 12/03/1997 - 12/31/1999 FY99: \$67,912 Total: \$142,822
Prin. Invest.: C M TELESCO, R K PIKA
Tech. Officer: ARC/E F ERICKSON, ARC/M R HAAS
CASE Category: 11 - ASTRONOMY

NCC 3 476 UNIVERSITY OF FLORIDA 3871
 IN-SITU MONITORING OF CRYSTAL GROWTH USING MEPISTO
 05/22/1996 - 08/07/2000 FY99: \$218,995 Total: \$501,495
Prin. Invest.: R ABBASCHIAN
Tech. Officer: GRC/C DEGON
CASE Category: 13 - PHYSICS

NCC 8 149 UNIVERSITY OF FLORIDA 3872
 RESEARCH IN COMMUNICATING SCIENTIFIC KNOWLEDGE
 12/22/1997 - 12/21/1999 FY99: \$565,979 Total: \$914,917
Prin. Invest.: D TREISE
Tech. Officer: MSFC/J M HORACK, MSFC/G S WILSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 157 UNIVERSITY OF FLORIDA 3873
 SOUTHEAST REGIONAL EARTH SCIENCE APPLICATIONS CENTER
 10/20/1998 - 10/20/2003 FY99: \$100,000 Total: \$100,000
Prin. Invest.: J W JONES, J W HANSEN
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 9 84 UNIVERSITY OF FLORIDA 3874
 AUTOMATIC TEST ANALYSIS FOR ADA PROGRAMS
 03/18/1999 - 02/28/2000 FY99: \$90,000 Total: \$90,000
Prin. Invest.: Y H LEE
Tech. Officer: JSC/A T LEE
CASE Category: 22 - COMPUTER SCIENCE

NGT 51695 UNIVERSITY OF FLORIDA 3875
 GRAD STUDENT RESEARCH PROGRAM
 08/07/1996 - 08/09/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: R NARAYANAN
Tech. Officer: HQ/G LESANE
CASE Category: 43 - CHEMICAL ENGR

NGT 3 52320 UNIVERSITY OF FLORIDA 3876
 GRADUATE STUDENT RESEARCHERS PROGRAM
 08/06/1996 - 08/10/1998 FY99: \$0 Total: \$33,001
Prin. Invest.: R NARAYANAN
Tech. Officer: HQ/D MONTAGANI
CASE Category: 43 - CHEMICAL ENGR

NGT 5 94 UNIVERSITY OF FLORIDA 3877
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) FELLOW SHIP STUDENT - KEVIN WALCHKI
 06/22/1999 - 07/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: D MASON
Tech. Officer: GSFC/G A SOFFEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30022 UNIVERSITY OF FLORIDA 3878
 FIRE, INSECT OUTBREAKS, AND CLIMATE CHANGE IN BORE OF CROSS-SCALE DYNAMICS
 10/14/1996 - 08/31/1999 FY99: \$0 Total: \$58,301
Prin. Invest.: C HOLLING
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40025 UNIVERSITY OF FLORIDA 3879
 THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PR
 12/19/1996 - 01/31/2000 FY99: \$510,000 Total: \$1,404,996
Prin. Invest.: H CAMPINS
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50018 UNIVERSITY OF FLORIDA 3880
 MODIFYING EXISTING INSTRUMENTATION TO ADVANCE PIXO UCTION TECHNIQUES
 07/14/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: C M TELESCO
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50021 UNIVERSITY OF FLORIDA 3881
 THE CHEM & PHY PROPERTIES OF COMETS HALE-BOPP (199 6 B2)
 07/17/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: H CAMPINS
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50026 UNIVERSITY OF FLORIDA 3882
 THE EFFECT OF GRAVITY ON THE SEPARATION SPECIES
 07/14/1997 - 08/14/1998 FY99: -\$3 Total: \$21,997
Prin. Invest.: R NARAYANAN
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50031 UNIVERSITY OF FLORIDA 3883
 DETECTING PLANETS IN CIRCUMSTELLAR DISKS
 07/17/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: S DERMOTT
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50074 UNIVERSITY OF FLORIDA 3884
 RAPID THERMAL PROCESSING OF INDIUM ARSENIDE USING RANSPO
 REACTOR STUDENT - DANIEL
 09/05/1997 - 08/31/2000 FY99: \$22,000 Total: \$64,960
Prin. Invest.: T ANDERSON
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50081 UNIVERSITY OF FLORIDA 3885
 HIGH PERFORMANCE POLYMERS FOR CATION SEPARATION AN ENVIRON-
 MENTS
 09/05/1997 - 06/30/1998 FY99: -\$474 Total: \$21,526
Prin. Invest.: DURAN
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50134 UNIVERSITY OF FLORIDA 3886
 A COMPLETE STUDY OF FAR-INFRARED RADIATION IN NEAR OMBINING
 ISO DATA WITH BRACKETT GAMMA SPECTROSCOP
 09/10/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: R M ELSTON
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50168 UNIVERSITY OF FLORIDA 3887
 SCATTERING PROPERTIES OF AGGREGATE DUST PARTICLES GSRP REEC-
 IPIENT:JOANNA E. THOMAS-OSIP
 09/10/1997 - 06/30/1998 FY99: -\$52 Total: \$21,948
Prin. Invest.: B GUSTAFSON
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50177 UNIVERSITY OF FLORIDA 3888
 THE ORIGIN OF THE INFRARED EXCESS IN PRE-MAIN-SEQUENCE
 STARS(STUDENT - E. POLOMSKI)
 05/26/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C TELESCO
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50233 UNIVERSITY OF FLORIDA 3889
 LOOKING FOR VARIATIONS IN THE INITIAL MASS FUNCTION: FIRST COM-
 PREHENSIVE NEAR-INFRARED SPECTROSCOPY
 05/27/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: E A LADA
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT13 52710 UNIVERSITY OF FLORIDA 3890
 NASA GRADUATE PROGRAM-USING REMOTE SENSING TECHNIQUES TO
 ASSESS STRESS CONDITIONS
 07/21/1997 - 07/31/2000 FY99: \$22,000 Total: \$65,846
Prin. Invest.: S SHIH
Tech. Officer: JSC/A JOYCE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 2002 UNIVERSITY OF MIAMI 3891
 A COMPACT AIRBORNE SYS FOR SO2 & DMF MEAS FOR USE ON FUT GTE
 MISSIONS
 02/09/1998 - 02/08/2000 FY99: \$128,918 Total: \$325,200
Prin. Invest.: E S SALTZMAN
Tech. Officer: LARC/J M HOELL, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1945 UNIVERSITY OF MIAMI 3892
 INTEGRATION OF SLR AND VLBI DATA TO OBTAIN VERY AC CURATE HOR-
 IZONTAL AND VERTICAL MOTIONS
 03/12/1992 - 09/14/1999 FY99: \$0 Total: \$241,000
Prin. Invest.: C HARRISON
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 2207 UNIVERSITY OF MIAMI 3893
 GPS GEODETIC MONITORING OF SOUTH AMERICA - NOZCA P LATE CON-
 VERGENCE (SNAPP)
 03/09/1993 - 03/14/1999 FY99: \$0 Total: \$388,999
Prin. Invest.: T H DIXON
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 2969 UNIVERSITY OF MIAMI 3894
 SOURCES OF THE EARTH'S MAGNETIC FIELD STUDIED USING ORSTED
 DATA
 06/15/1995 - 06/25/1999 FY99: \$0 Total: \$150,000
Prin. Invest.: C HARRISON
Tech. Officer: GSFC/P T TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3036 UNIVERSITY OF MIAMI 3895
 GEODETIC MONITORING OF ACTIVE VOLCANOES WITH SAR INTERFER-
 OMETRY
 07/27/1995 - 08/14/1998 FY99: \$0 Total: \$175,000
Prin. Invest.: T DIXON
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4025 UNIVERSITY OF MIAMI 3896
 GEODETIC MONITORING OF ACTIVE VOLCANOES WITH SAR I RADARSAT
 04/25/1997 - 02/29/2000 FY99: \$71,397 Total: \$185,100
Prin. Invest.: T H DIXON
Tech. Officer: GSFC/S H GOGINENI
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6033 UNIVERSITY OF MIAMI 3897
 AN INTEGRATED GPS SYSTEM FOR MONITORING ACTIVE VOL CANOES
 10/02/1997 - 09/30/1999 FY99: \$0 Total: \$199,999
Prin. Invest.: T H DIXON
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6154 UNIVERSITY OF MIAMI 3898
 GLOBAL SURVEY OF THE SPECTRAL ABSORPTION PROPERTIES ON MEASUREMENTS OF ARCHIVED AEROSOL FILTERS
 09/08/1997 - 09/14/1998 FY99: \$0 Total: \$66,906
Prin. Invest.: J PROSPERO
Tech. Officer: GSFC/J HERMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6255 UNIVERSITY OF MIAMI 3899
 SATELLITE DATA ASSIMILATION IN THE MIAMI OCEAN MO OCEANIC HEAT TRANSPORT CALCULATIONS AND PROCESS S
 08/22/1997 - 09/30/1998 FY99: -\$2 Total: \$102,997
Prin. Invest.: A MARIANO
Tech. Officer: GSFC/E J LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6326 UNIVERSITY OF MIAMI 3900
 "ALGORITHM DEVELOPMENT AND EVALUATION, AND SUPPORT FOR AVHRR/OCEANS PATHFINDERS
 09/11/1997 - 06/30/1998 FY99: -\$2 Total: \$39,998
Prin. Invest.: R EVANS
Tech. Officer: GSFC/E J LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6576 UNIVERSITY OF MIAMI 3901
 SEAWIFS DATA COLLECTION, CALIBRATION AND PROCESSING FOR THE INDIAN OCEAN
 12/15/1997 - 10/31/2000 FY99: \$52,324 Total: \$102,821
Prin. Invest.: R EVANS
Tech. Officer: GSFC/J YODER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6577 UNIVERSITY OF MIAMI 3902
 HIGH ACCURACY INFRARED INTERFEROMETRIC VALIDATION OF SATELLITE SURFACE TEMPERATURE RETRIEVALS
 12/12/1997 - 10/31/1999 FY99: \$0 Total: \$438,854
Prin. Invest.: P J MINNETT
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6610 UNIVERSITY OF MIAMI 3903
 GEOCORE: GEOGRAPHIC INFORMATION SYSTEMS (GIS) FACILITY FOR COASTAL AND OCEANOGRAPHIC RESEARCH AND
 12/16/1997 - 11/30/1998 FY99: -\$92 Total: \$189,172
Prin. Invest.: G HEALY
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6659 UNIVERSITY OF MIAMI 3904
 A STUDY OF THE IMPACT OF OCEANIC BIOLOGICAL PROCESSES ON THE AIR-SEA EXCHANGE OF METHYL BROMIDE:
 11/20/1997 - 09/14/2000 FY99: \$31,000 Total: \$245,062
Prin. Invest.: E SALTZMAN
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 7110 UNIVERSITY OF MIAMI 3905
 TOMS VALIDATION BASED ON PROFILES OF AEROSOL PROPERTIES IN THE LOWER TROPOSPHERE AS OBTAINED WITH
 03/18/1998 - 03/31/2000 FY99: \$147,265 Total: \$304,136
Prin. Invest.: D M PROSPERO
Tech. Officer: GSFC/J HERMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7668 UNIVERSITY OF MIAMI 3906
 RELATIVE AND ABSOLUTE SEA LEVEL CHANGE IN GULF OF NEW MEXICO, A STUDY OF RAPID LAND SUBSIDENCE'S
 09/28/1998 - 09/30/1999 FY99: \$0 Total: \$25,000
Prin. Invest.: C G HARRISON
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7674 UNIVERSITY OF MIAMI 3907
 INTEGRATION OF LONG TERM OCEANIC AEROSOL RECORDS FROM UNIVERSITY OF MIAMI NETWORK STATIONS WITH
 09/09/1998 - 08/31/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: J M PROSPERO
Tech. Officer: GSFC/M I MISHCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8161 UNIVERSITY OF MIAMI 3908
 COORDINATION OF THE 4TH INTERNATIONAL SYMPOSIUM ON GAS TRANSFER AT WATER SURFACES, JUNE 5-8
 02/05/1999 - 01/31/2001 FY99: \$18,000 Total: \$18,000
Prin. Invest.: M DONELAN
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8222 UNIVERSITY OF MIAMI 3909
 ACTIVITIES AS PROJECT SCIENTIST OF GLOBAL MODELING INITIATIVE
 02/10/1999 - 12/31/1999 FY99: \$122,797 Total: \$122,797
Prin. Invest.: J RODRIGUEZ
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8229 UNIVERSITY OF MIAMI 3910
 STUDIES OF WESTERN PACIFIC INTERANNUAL ANOMALY PATTERNS TOWARD IMPROVED ENSO PREDICTION.
 02/24/1999 - 03/31/2000 FY99: \$78,959 Total: \$78,959
Prin. Invest.: C WANG
Tech. Officer: GSFC/M RIENECKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 30694 UNIVERSITY OF MIAMI 3911
 MAINTENANCE & OPERATION OF ATS-3 COMMUNICATION SYSTEM (CONTRACT TRANSFERRED TO LEWIS RES. CNTR)
 05/23/1989 - 07/31/1998 FY99: \$0 Total: \$848,444
Prin. Invest.: O B BROWN
Tech. Officer: GSFC/R WALES
CASE Category: 49 - ENGINEERING, OTHER

NAS 5 31361 UNIVERSITY OF MIAMI 3912
 MODIS - INVESTIGATION
 01/15/1992 - 12/14/2001 FY99: \$1,160,000 Total: \$5,944,000
Prin. Invest.: O B BROWN
Tech. Officer: GSFC/H OSEROFF
CASE Category: 33 - OCEANOGRAPHY

NAS 5 31362 UNIVERSITY OF MIAMI 3913
 EOS/MODIS INVESTIGATION ENTITLED: "PROCESSING/ CALIBRATION FOR
 OCEAN OBSERVATION WITH EOS/MODIS"
 12/13/1991 - 12/14/2001 FY99: \$1,445,000 Total: \$8,201,000
Prin. Invest.: R EVANS
Tech. Officer: GSFC/H OSEROFF
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31363 UNIVERSITY OF MIAMI 3914
 MODERATE RESOLUTION IMAGING SPECTROMETER INVESTIGATION -
 OCEAN
 01/15/1992 - 12/14/2001 FY99: \$802,000 Total: \$4,566,000
Prin. Invest.: H GORDON
Tech. Officer: GSFC/H OSEROFF
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31734 UNIVERSITY OF MIAMI 3915
 DEVELOPMENT FOR SEAWIFS
 11/22/1991 - 11/21/1998 FY99: \$0 Total: \$369,000
Prin. Invest.: H GORDAN
Tech. Officer: GSFC/C MCLAIN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 843 UNIVERSITY OF MIAMI 3916
 FLIGHT TRAINING FOR THE HIGH TECHNOLOGY TRANSPORT COCKPIT
 01/31/1994 - 09/30/1998 FY99: -\$2,708 Total: \$572,980
Prin. Invest.: E L WIENER
Tech. Officer: ARC/S M CASNER, ARC/E A PALMER
CASE Category: 69 - PSYCHOLOGY, OTHER

NGT 5 30011 UNIVERSITY OF MIAMI 3917
 MID-OCEAN MESOSCALE VARIABILITY AS DEDUCED FROM TO HIGH-RES-
 OLUTION NUMERICAL MODELING
 10/14/1996 - 08/31/1998 FY99: \$0 Total: \$44,000
Prin. Invest.: O BROWN
Tech. Officer: GSFC/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NGT 5 30027 UNIVERSITY OF MIAMI 3918
 MONITORING ABSOLUTE SEA LEVEL CHANGE AND COASTAL S
 10/17/1996 - 08/31/1998 FY99: \$0 Total: \$44,000
Prin. Invest.: T DIXON
Tech. Officer: GSFC/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NGT 5 30222 UNIVERSITY OF MIAMI 3919
 MID-OCEAN MESOSCALE VARIABILITY AS DEDUCED FROM TOPEX ALTIME-
 TRY & HIGH-RESOLUTION NUMERICAL MODEL
 08/26/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: O B BROWN
Tech. Officer: GSFC/M Y WEI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90048 UNIVERSITY OF MIAMI 3920
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH
 02/04/1997 - 08/14/1998 FY99: -\$2,155 Total: \$43,368
Prin. Invest.: K Y FUNG
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 1104 UNIVERSITY OF SOUTH FLORIDA 3921
 COMPARISON OF 2 MEGOHM HOLMIUM AND 10 MEGOHM CAR- BON OXY-
 GEN 2 LIDAR FOR ATMOSPHERIC BACKSCATTER AND
 02/13/1990 - 09/30/1998 FY99: \$0 Total: \$448,548
Prin. Invest.: D K KILLINGER, K CHAN
Tech. Officer: LARC/P BROCKMAN, LARC/G J KOCH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3446 UNIVERSITY OF SOUTH FLORIDA 3922
 BOTTOM-ASSESSMENT AND WATER-CONSTITUTENT ALGORITHM S FOR
 THE ETM IN THE COASTAL ZONE
 10/10/1996 - 10/31/1999 FY99: \$100,222 Total: \$480,964
Prin. Invest.: K L CARDER
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 5202 UNIVERSITY OF SOUTH FLORIDA 3923
 COLLABORATION ON A STUDY OF SIGMA NAUGHT BLOOM EFFECTS ON
 RADAR ALTIMETERS
 06/18/1998 - 03/31/2000 FY99: \$25,000 Total: \$40,000
Prin. Invest.: G T MITCHUM
Tech. Officer: GSFC/G S HAYNE
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6301 UNIVERSITY OF SOUTH FLORIDA 3924
 HYPERSPECTRAL CHARACTERIZATION FOR APPLICATION TO CARBON
 CYCLING IN COASTAL REGIONS
 09/02/1997 - 08/14/2000 FY99: \$37,084 Total: \$275,571
Prin. Invest.: P COBLE
Tech. Officer: GSFC/J YODER
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6448 UNIVERSITY OF SOUTH FLORIDA 3925
 SYNOPTIC ANALYSIS OF FACTORS INFLUENCING CARBON FL UXES AT THE
 CARIACO CONTINENTAL MARGIN TIME SER
 10/24/1997 - 09/30/1999 FY99: \$148,970 Total: \$297,864
Prin. Invest.: F MULLER-KARGER
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6449 UNIVERSITY OF SOUTH FLORIDA 3926
 A NUMERICAL ANALYSIS OF NEW NITROGEN SOURCES OF NO 3 AND N2
 EFFECTING CARBON CYCLING IN THE SOUTH
 10/24/1997 - 10/14/2000 FY99: \$193,807 Total: \$386,691
Prin. Invest.: J WALSH
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8175 UNIVERSITY OF SOUTH FLORIDA 3927
 SOUTHEASTERN US X-BAND EOS DB RECEPTION FACILITY (SEUS-X):
 INFRASTRUC- TURE FOR ENVIRONMENTAL ASSE
 02/04/1999 - 02/14/2000 FY99: \$500,000 Total: \$500,000
Prin. Invest.: F E MULLER-KARGER, NONE
Tech. Officer: GSFC/J DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NASA'S UNIVERSITY PROGRAM

FLORIDA

NAG 8 1381 UNIVERSITY OF SOUTH FLORIDA 3928
 RESEARCH "DEVELOPMENT OF AN INSULIN SECRETING IMMUNOPRIVILEGED CELL-CELL AGGREGATE UTILIZING
 06/26/1997 - 12/31/2000 FY99: \$121,000 Total: \$264,000
Prin. Invest.: D CAMERON
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 648 UNIVERSITY OF SOUTH FLORIDA 3929
 EVALUATION OF OVARIAN TUMOR CELL GROWTH AND GENE EXPRESSION
 10/28/1992 - 06/11/2000 FY99: \$0 Total: \$600,000
Prin. Invest.: J L BECKER
Tech. Officer: JSC/S R GONDA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 959 UNIVERSITY OF SOUTH FLORIDA 3930
 DEVELOP INTERACTIVE ASTRONAUT TRAINING MATERIALS
 09/23/1997 - 09/22/1999 FY99: \$0 Total: \$11,500
Prin. Invest.: L L ROBBINS
Tech. Officer: JSC/K P LULLA
CASE Category: 33 - OCEANOGRAPHY

NAG 9 1104 UNIVERSITY OF SOUTH FLORIDA 3931
 INVESTIGATIONS OF BIOMARKERS IN MINERAL ASSEMBLAGE
 05/10/1999 - 05/09/2004 FY99: \$15,000 Total: \$15,000
Prin. Invest.: L L ROBBINS
Tech. Officer: JSC/E K GIBSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3483 UNIVERSITY OF SOUTH FLORIDA 3932
 EVALUATION OF REGIONAL AND TEMPORAL VARIATION OF PRIMARY PRODUCTIVITY IN CASE II OCEAN SHELF WATERS
 05/06/1993 - 03/31/1998 FY99: -\$94 Total: \$914,422
Prin. Invest.: F MULLER-KARGER
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 33 - OCEANOGRAPHY

NAGW 3618 UNIVERSITY OF SOUTH FLORIDA 3933
 INCORPORATION OF SEAWIFS DATA INTO COUPLED PHYSICAL/BIOLOGICAL MODELS OF THE ARABIAN SEA
 06/09/1993 - 03/30/1998 FY99: -\$12,916 Total: \$504,185
Prin. Invest.: M E LUTHER
Tech. Officer: HQ/R E MURPHY, HQ/D M BUTLER
CASE Category: 33 - OCEANOGRAPHY

NAGW 3950 UNIVERSITY OF SOUTH FLORIDA 3934
 INVESTIGATION OF THE RESPONSE OF THE ARABIAN SEA TO THE SOUTH-WEST MONSOON USING AIRCRAFT AND SATELL
 04/21/1994 - 04/30/1998 FY99: -\$106 Total: \$299,821
Prin. Invest.: P G COBLE, P STEGMANN
Tech. Officer: HQ/A C JANETOS
CASE Category: 33 - OCEANOGRAPHY

NAG10 204 UNIVERSITY OF SOUTH FLORIDA 3935
 EDUCATION GRANT ENTITLED "YES WE CARE"
 01/07/1997 - 06/30/2000 FY99: \$68,296 Total: \$253,692
Prin. Invest.: R E HENNING
Tech. Officer: KSC/J A DIGGS
CASE Category: 41 - AERONAUTICAL ENGR

NAS 3 26412 UNIVERSITY OF SOUTH FLORIDA 3936
 ACTS PROPAGATION EXPERIMENTS
 05/03/1993 - 03/31/2000 FY99: \$35,378 Total: \$376,895
Prin. Invest.: R E HENNING
Tech. Officer: GRC/G J GUNDERMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 5 31716 UNIVERSITY OF SOUTH FLORIDA 3937
 EARTH OBSERVING SYSTEM MODIS/HIRIS TEAM MEMBER INVESTIGATION
 01/15/1992 - 12/14/2001 FY99: \$649,000 Total: \$4,148,168
Prin. Invest.: K R CARDER
Tech. Officer: GSFC/H OSEROFF
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 97128 UNIVERSITY OF SOUTH FLORIDA 3938
 CALVAL OF CARBON FLUXES FOR SIMBIOS
 08/18/1997 - 08/17/2000 FY99: \$272,989 Total: \$616,988
Prin. Invest.: F E MULLER-KARGER
Tech. Officer: GSFC/C R MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NAS 5 97137 UNIVERSITY OF SOUTH FLORIDA 3939
 STRAY LIGHT & ATMOSPHERIC ADJACENCY EFFECTS FOR LARGE FOV OCEAN VIEWING SPACE SENSORS
 09/23/1997 - 09/22/2009 FY99: \$301,230 Total: \$520,841
Prin. Invest.: K CARTER
Tech. Officer: GSFC/J L MUELLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 8 31 UNIVERSITY OF SOUTH FLORIDA 3940
 TECHNOLOGY REINVESTMENT PROGRAM
 04/11/1994 - 09/30/1997 FY99: -\$2,368 Total: \$952,666
Prin. Invest.: S N BUSANSKY, D C KEEZER
Tech. Officer: MSFC/S LITTLE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 30270 UNIVERSITY OF SOUTH FLORIDA 3941
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/20/1994 - 09/30/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: M LUTHER, T BUSALACCHI
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NGT 70375 UNIVERSITY OF SOUTH FLORIDA 3942
 GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/22/1994 - 06/30/1998 FY99: \$0 Total: \$132,000
Prin. Invest.: D V LIM
Tech. Officer: HQ/D K RUSSELL
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 30098 UNIVERSITY OF SOUTH FLORIDA 3943
 "ANALYTIC RECOGNITION AND ESTIMATION OF AEROSOL ABSORPTION IN THE REMOTE SENSING IMAGERY: A PROPOSE
 10/17/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: K CARDER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30143 UNIVERSITY OF SOUTH FLORIDA 3944
 EL NINO/SOUTHERN OSCILLATION IN THE ANTARCTIC CIRCUMPOLAR CURRENT
 08/27/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: G T MITHCHUM, HAAN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30159 UNIVERSITY OF SOUTH FLORIDA 3945
 FUNCTIONAL GROUPING OF PLANTS IN FLORIDA SCRUB HABITAT
 08/28/1998 - 08/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: J R BROOKS
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 2236 UNIVERSITY OF WEST FLORIDA 3946
 INTELLIGENT TACTILE SYSTEMS FOR IMPROVED SAFETY OF FLIGHT (NRA-98-LARC-8)
 09/20/1999 - 09/19/2001 FY99: \$66,583 Total: \$66,583
Prin. Invest.: A K RAV
Tech. Officer: LARC/W K GERDEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1225 UNIVERSITY OF WEST FLORIDA 3947
 ATTENTION DIRECTING PILOTING DISPLAY: OZ A COMPUTE R BASED HUMAN-CENTERED SYSTEM
 05/29/1998 - 09/30/1999 FY99: \$100,000 Total: \$273,500
Prin. Invest.: D L STILL
Tech. Officer: ARC/D C FOYLE
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 2 1226 UNIVERSITY OF WEST FLORIDA 3948
 INTELLIGENT HUMAN COMPUTER TACTILE INTERFACES FOR ROTORCRAFT & CIVIL AVIATION
 06/11/1998 - 09/30/1999 FY99: \$134,000 Total: \$344,054
Prin. Invest.: N SURI, F GUEDRY, A RAZ
Tech. Officer: ARC/R J SHIVELY/J V LEBACQZ
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1332 UNIVERSITY OF WEST FLORIDA 3949
 ADAPTING AN ATTENTION DIRECTIONPILOTING DISPLAY FOR THE SPACE SHUTTLE
 06/21/1999 - 06/14/2000 FY99: \$72,614 Total: \$72,614
Prin. Invest.: D STILL, NONE
Tech. Officer: 10/A R GROSS
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 8782 UNIVERSITY OF WEST FLORIDA 3950
 HAPTIC INTERFACES TO AUGMENT HUMAN/MACHINE INTERACTION IN SPACE ACTIVITIES
 08/30/1999 - 08/31/2000 FY99: \$54,663 Total: \$54,663
Prin. Invest.: A RAJ
Tech. Officer: GSFC/R CROUCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 1016 UNIVERSITY OF WEST FLORIDA 3951
 THE VIRTUAL SOLAR SYSTEM
 02/05/1998 - 06/30/1999 FY99: \$0 Total: \$110,000
Prin. Invest.: N SURI, A CANAS
Tech. Officer: ARC/M H SHIRLEY
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1036 UNIVERSITY OF WEST FLORIDA 3952
 EXPLANATION & COLLABORATION THROUGH CONCEPT MAPS
 05/07/1998 - 02/29/2000 FY99: \$297,999 Total: \$494,293
Prin. Invest.: A J CANAS
Tech. Officer: ARC/B H WHITAKER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 9 37 UNIVERSITY OF WEST FLORIDA 3953
 MECHANISMS OF SENSORIMOTOR ADAPTATION TO CENTRIFUGATION
 06/15/1995 - 02/28/1998 FY99: -\$1,091 Total: \$73,126
Prin. Invest.: F GUEDRY
Tech. Officer: JSC/W PALOSKI
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG10 165 VALENCIA COMMUNITY COLLEGE 3954
 HIGH TECH TRAINING OF INDIVIDUALS WITH DISABILITY
 06/06/1995 - 08/31/2000 FY99: \$20,000 Total: \$95,043
Prin. Invest.: K WOODBERRY
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 22 - COMPUTER SCIENCE

GEORGIA

NAG 8 1489 ALBANY STATE UNIVERSITY 3955
 DEVELOPMENT OF WEBBASED INSTRUMENTS AND IMPROVEMENT OF MINORITY INSTRUMENTS SCIENCE
 02/20/1998 - 07/31/1999 FY99: \$0 Total: \$92,359
Prin. Invest.: S N PANDAY
Tech. Officer: MSFC/G GORDON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG10 233 ALBANY STATE UNIVERSITY 3956
 PROJECT HIGH SCHOOL/HIGH TECH
 09/30/1997 - 12/31/1999 FY99: \$0 Total: \$211,500
Prin. Invest.: G L BLACK, III
Tech. Officer: KSC/E JOHNSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 265 ALBANY STATE UNIVERSITY 3957
 ALBANY STATE UNIVERSITY HIGH SCHOOL/HIGH TECH ALBANY STATE UNIVERSITY HIGH SCHOOL/HIGH TECH
 09/10/1999 - 09/09/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: D HODGES-TILLER
Tech. Officer: KSC/R J MCKINNEY
CASE Category: 79 - SOCIAL SCIENCE, OTHER

NAG 3 1773 CLARK ATLANTA UNIVERSITY 3958
 TURBULENT PREMIXED METHANE-AIR COMBUSTION: EMISSIONS, CHARACTERISTICS, AND MODELING
 07/28/1995 - 07/27/1998 FY99: \$0 Total: \$225,000
Prin. Invest.: Y D YEBOAH
Tech. Officer: GRC/H D ROSS, GRC/R F LAWRENCE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1973 CLARK ATLANTA UNIVERSITY 3959
 GROWTH AND CHARACTERIZATION OF III-V SEMICONDUCTORS FOR DEVICE APPLICATIONS
 09/26/1996 - 03/31/2000 FY99: \$99,585 Total: \$299,214
Prin. Invest.: M D WILLIAMS
Tech. Officer: GRC/S A ALTERNOVITZ
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1996 CLARK ATLANTA UNIVERSITY 3960
 RESEARCH FACILITY TO STUDY FLOWS THROUGH ANNULAR DIFFUSERS
 11/19/1996 - 05/31/1999 FY99: \$0 Total: \$110,139
Prin. Invest.: R R TACINA
Tech. Officer: GRC/R R TACINA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2070 CLARK ATLANTA UNIVERSITY 3961
 THE CONSTRUCTION OF FINITE DIFFERENCE SCHEMES HAVING SPECIAL PROPERTIES
 08/20/1997 - 12/31/1998 FY99: \$0 Total: \$131,510
Prin. Invest.: R MICKENS
Tech. Officer: GRC/E MILNER
CASE Category: 21 - MATHEMATICS

NAG 3 2292 CLARK ATLANTA UNIVERSITY 3962
 TEST AND EVALUATION OF NONCHROMATE FINISHING AGENT
 09/29/1999 - 08/23/2002 FY99: \$100,000 Total: \$100,000
Prin. Invest.: D OKHIO
Tech. Officer: GRC/R LAWRENCE
CASE Category: 43 - CHEMICAL ENGR

NAG 4 149 CLARK ATLANTA UNIVERSITY 3963
 CHEMICALLY DERIVED DENSE ALUMINA-ZIRCONIA COMPOSITES FOR IMPROVING MECHANICAL AND WEAR EROSION
 03/03/1998 - 03/03/1999 FY99: \$0 Total: \$48,000
Prin. Invest.: L MOETI
Tech. Officer: DFRC/E COX, DFRC/K K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 4763 CLARK ATLANTA UNIVERSITY 3964
 CROSS SECTIONS FOR ELECTRON IMPACT EXCITATION OF PLANETARY ATMOSPHERES OBSERVATION
 06/11/1997 - 06/30/1998 FY99: \$0 Total: \$60,000
Prin. Invest.: P J TAYAL
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6169 CLARK ATLANTA UNIVERSITY 3965
 THE ACCURACY OF EARTH OBSERVING SYSTEM MEASUREMENT DYNAMICS
 08/01/1997 - 07/31/2000 FY99: \$100,000 Total: \$200,000
Prin. Invest.: D STEPHENSON-HAWK, NONE
Tech. Officer: GSFC/R ROOD
CASE Category: 13 - PHYSICS

NAG 5 6889 CLARK ATLANTA UNIVERSITY 3966
 ELECTRON EXCITATION CROSS SECTIONS OF ATOMS AND IONS RELEVANT TO PLANETARY ATMOSPHERES
 01/21/1998 - 03/31/2000 FY99: \$65,900 Total: \$130,300
Prin. Invest.: S TAYAL
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8792 CLARK ATLANTA UNIVERSITY 3967
 DEVELOPMENT OF DISPERSION RELATIONS FOR SOLAR AND STELLAR DIAGNOSTICS
 09/02/1999 - 08/31/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: A MSEZANE
Tech. Officer: GSFC/A TEMKIN
CASE Category: 13 - PHYSICS

NAG 8 1345 CLARK ATLANTA UNIVERSITY 3968
 RESEARCH ENTITLED: "EXPERIMENTAL AND NUMERICAL STUDIES OF COMBUSTION INSTABILITIES"
 04/16/1997 - 05/30/2000 FY99: \$0 Total: \$199,272
Prin. Invest.: T BAI
Tech. Officer: MSFC/A CHOW
CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1493 CLARK ATLANTA UNIVERSITY 3969
 MOBILE SCIENCE, MATHEMATICS EDUCATION UNIT
 06/01/1998 - 05/31/2001 FY99: \$98,827 Total: \$197,107
Prin. Invest.: A MSEZANE
Tech. Officer: MSFC/A BEAM
CASE Category: 21 - MATHEMATICS

NAG 8 1535 CLARK ATLANTA UNIVERSITY 3970
 MASTAP FOR SCIENCE TEACHERS OPEN SUPPORT SYSTEMS (S-TOSS)
 05/07/1998 - 05/01/2001 FY99: \$200,000 Total: \$400,000
Prin. Invest.: B E ALICK
Tech. Officer: MSFC/A C BEAM
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 170 CLARK ATLANTA UNIVERSITY 3971
 BIOCONVERSION OF WASTE TO NUTRITIONAL PROTEIN BY MICROBIAL MATS
 06/09/1995 - 06/11/1998 FY99: \$0 Total: \$299,528
Prin. Invest.: S RODRIGUEZ-EATON
Tech. Officer: KSC/K POIMBOEUF, KSC/J SAGER
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAS 3 27785 CLARK ATLANTA UNIVERSITY 3972
 NRA-95-1-LERC-MODELING AND TESTING OF HYBRID TITANIUM COMPOSITE LAMINATES AT NORMAL & ELEVATED TEMPERATURE
 10/20/1995 - 09/30/1998 FY99: \$0 Total: \$179,706
Prin. Invest.: A ABRATAN
Tech. Officer: GRC/G D ROBERTS
CASE Category: 47 - METAL & MATERIALS ENGR

NAS 3 27881 CLARK ATLANTA UNIVERSITY 3973
 STUDY OF LONG TERM DURABILITY OF POLYMER MATRIX COMPOSITES FOR HIGH TEMPERATURE APPLICATIONS
 10/10/1995 - 04/09/1999 FY99: \$0 Total: \$169,999
Prin. Invest.: A BADIR, K TALREJA
Tech. Officer: GRC/K J BOWLES
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 1 270 CLARK ATLANTA UNIVERSITY 3974
 COMPUTATIONAL MATERIALS RESEARCH
 12/15/1997 - 12/14/1998 FY99: \$0 Total: \$20,964
Prin. Invest.: D R VEAZIE
Tech. Officer: LARC/T S GATES
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 341 CLARK ATLANTA UNIVERSITY 3975
 COMPUTATIONAL MATERIALS RESEARCH: RESIDUAL STRESS AND DATA CORRELATION
 05/14/1999 - 09/30/1999 FY99: \$30,000 Total: \$30,000
Prin. Invest.: D R VEAZIE
Tech. Officer: LARC/T S GATES
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 454 **CLARK ATLANTA UNIVERSITY** **3976**
 THE HENRY CECIL RANSON MCBAY CHAIR IN SPACE SCIENC E
 02/26/1996 – 06/30/1999 FY99: \$0 Total: \$750,000
Prin. Invest.: K B BOTA
Tech. Officer: GRC/J M EARLS, GRC/S DUTTA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 3 552 **CLARK ATLANTA UNIVERSITY** **3977**
 HIGH PERFORMANCE POLYMERS AND COMPOSITES CENTER
 04/29/1997 – 02/28/2002 FY99: \$999,924 Total: \$2,849,912
Prin. Invest.: A A MINTZ
Tech. Officer: GRC/S DUTTA, GRC/M A MEADOR
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 707 **CLARK ATLANTA UNIVERSITY** **3978**
 LIQUID FUELS: PYROLYTIC DEGRADATION AND FIRE SPRE AD BEHAVIOR
 AS INFLUENCED BY BUOYANCY
 05/19/1999 – 03/14/2002 FY99: \$107,804 Total: \$107,804
Prin. Invest.: Y D YEBOAH
Tech. Officer: GRC/H D ROSS
CASE Category: 49 – ENGINEERING, OTHER

NCC 5 347 **CLARK ATLANTA UNIVERSITY** **3979**
 INTEGRATION OF RESEARCH AND EDUCATION IN THE AREA OF EARTH
 SYSTEMSSCIENCE
 07/01/1998 – 06/30/2003 FY99: \$499,336 Total: \$996,190
Prin. Invest.: D STEPHENSON-HAWK
Tech. Officer: HQ/B WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1579 **EMORY UNIVERSITY** **3980**
 DESIGN, SYNTHESIS, AND CHARACTERIZATION OF WELL- DEFINED, BIOMI-
 METIC POLYPEPTIDE NETWORKS*
 01/05/1999 – 11/30/2002 FY99: \$102,862 Total: \$102,862
Prin. Invest.: V CONTICELLO
Tech. Officer: MSFC/B GUYNES
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 1 1582 **GEORGIA INSTITUTE OF TECHNOLOGY** **3981**
 ELEVATED TEMPERATURE CRACK GROWTH BEHAVIOR IN AL ALLOY 2519
 AND ITS VARIANTS
 01/28/1994 – 06/30/1998 FY99: -\$1,099 Total: \$250,897
Prin. Invest.: A SAXENA
Tech. Officer: LARC/R S PIASCIK, LARC/J C NEWMAN JR.
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 1 1631 **GEORGIA INSTITUTE OF TECHNOLOGY** **3982**
 MODELING MACRO – AND MICRO-SCALE TURBULENT MIXING AND CHEM-
 ISTRY IN ENGINE EXHAUST PLUMES
 06/30/1994 – 09/30/1998 FY99: \$0 Total: \$427,157
Prin. Invest.: S MENON
Tech. Officer: LARC/W L GROSE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1662 **GEORGIA INSTITUTE OF TECHNOLOGY** **3983**
 ECONOMIC RISK ANALYSIS OF LARGE TRANSPORT CONFIGURATIONS AN
 IMPLEMENTATION OF GEORGIA TECH'S
 12/07/1994 – 03/31/1998 FY99: \$0 Total: \$236,451
Prin. Invest.: D N MAVRIS
Tech. Officer: LARC/G L GILES
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1734 **GEORGIA INSTITUTE OF TECHNOLOGY** **3984**
 MEASUREMENTS TECHNOLOGY DEVELOPMENT TO VALIDATE DUCT LINER
 PROPAGATION MODELS
 06/27/1995 – 12/31/1999 FY99: \$58,454 Total: \$489,983
Prin. Invest.: K K AHUJA
Tech. Officer: LARC/M B TRACY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1766 **GEORGIA INSTITUTE OF TECHNOLOGY** **3985**
 MEASUREMENTS OF OH, H₂ SO₄, MSA, DMSO, AND DMSO₂ ON THE NASA
 P-38 AIRCRAFT
 09/29/1995 – 10/31/1998 FY99: \$0 Total: \$587,001
Prin. Invest.: D L EISELE, D L MAULDIN
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1767 **GEORGIA INSTITUTE OF TECHNOLOGY** **3986**
 NEW NASA RESEARCH GRANT
 09/28/1995 – 09/30/1998 FY99: -\$1 Total: \$651,694
Prin. Invest.: D D BRADSHAW, D T SANDHOLM
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1769 **GEORGIA INSTITUTE OF TECHNOLOGY** **3987**
 TROPOSPHERIC DIAGNOSTIC MODELING STUDIES OF PEM- TROPICS
 FIELD DATA: INVESTIGATION OF THE HOX/NOX/
 09/29/1995 – 03/31/1999 FY99: \$0 Total: \$486,238
Prin. Invest.: D D DAVIS, D CHAMEIDES
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1786 **GEORGIA INSTITUTE OF TECHNOLOGY** **3988**
 SYSTEM DEFINITION AND MODULE DEVELOPMENT FOR A COMPREHEN-
 SIVE AIRCRAFT SIZING AND SYNTHESIS TOOL
 01/19/1996 – 04/30/1999 FY99: \$49,602 Total: \$279,957
Prin. Invest.: D N MAVRIS
Tech. Officer: LARC/P A GELHAUSEN
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1793 **GEORGIA INSTITUTE OF TECHNOLOGY** **3989**
 ADVANCED DESIGN METHODOLOGY FOR ROBUST AIRCRAFT SIZING AND
 SYNTHESIS
 01/22/1996 – 04/30/1999 FY99: \$31,795 Total: \$276,515
Prin. Invest.: D N MAVRIS
Tech. Officer: LARC/P A GELHAUSEN
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1810 **GEORGIA INSTITUTE OF TECHNOLOGY** **3990**
 NEW NASA GRANT AWARD
 02/22/1996 – 02/21/1999 FY99: \$17,550 Total: \$150,001
Prin. Invest.: J QU
Tech. Officer: LARC/W H PROSSER
CASE Category: 46 – MECHANICAL ENGR

NAG 1 1822 **GEORGIA INSTITUTE OF TECHNOLOGY** **3991**
 A MODEL STUDY OF PEM-TROPICS OBSERVATIONS
 03/19/1996 – 03/31/1999 FY99: \$0 Total: \$420,092
Prin. Invest.: S LIU
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1890 **GEORGIA INSTITUTE OF TECHNOLOGY** **3992**
 HIGH TEMPERATURE COMPOSITE/METAL LAMINATES
 01/17/1997 - 01/16/2000 FY99: \$90,215 Total: \$181,232
Prin. Invest.: W S JOHNSON
Tech. Officer: LARC/T L ST. CLAIR, LARC/S E LOWTHER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1904 **GEORGIA INSTITUTE OF TECHNOLOGY** **3993**
 DOWNSIZING GEORGIA TECH'S AIRBORNE FLUORESCENCE SPECTROMETER (AFS) FOR THE MEASUREMENT OF NITROGEN
 02/27/1997 - 10/31/1998 FY99: \$0 Total: \$562,367
Prin. Invest.: J P BRADSHAW, S SANDHOLM
Tech. Officer: LARC/J M HOELL, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1951 **GEORGIA INSTITUTE OF TECHNOLOGY** **3994**
 RAPID PROTOTYPING OF COMPOSITE STRUCTURES
 07/14/1997 - 09/30/1998 FY99: \$0 Total: \$120,000
Prin. Invest.: J S COLTON
Tech. Officer: LARC/E S WEISER, LARC/H L BELVIN
CASE Category: 46 - MECHANICAL ENGR

NAG 1 2008 **GEORGIA INSTITUTE OF TECHNOLOGY** **3995**
 EXPLORATORY INVEST OF DURABILITY OF BENEFICIAL EFFECTS OF COLD WORKING OF HOLES IN ALUM ALLOYS
 02/13/1998 - 02/12/1999 FY99: \$0 Total: \$72,001
Prin. Invest.: W S JOHNSON
Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU
CASE Category: 46 - MECHANICAL ENGR

NAG 1 2014 **GEORGIA INSTITUTE OF TECHNOLOGY** **3996**
 TECHNIQUES FOR IMPROVING PILOT RECOVERY FROM SYSTEM FAILURES
 03/02/1998 - 03/01/2000 FY99: \$53,087 Total: \$103,473
Prin. Invest.: A R PRITCHETT
Tech. Officer: LARC/A C TRUJILLO
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2051 **GEORGIA INSTITUTE OF TECHNOLOGY** **3997**
 ADD. DEV. & SYSTEMS ANALYSES OF PNEUMATIC TECHNOLOGY FOR HIGH-SPEED CIVIL TRANSP AIRCRAFT
 04/06/1998 - 07/05/1999 FY99: \$32,879 Total: \$131,519
Prin. Invest.: R J ENGLAR
Tech. Officer: LARC/L S BANGERT, LARC/B A CAMPBELL
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2149 **GEORGIA INSTITUTE OF TECHNOLOGY** **3998**
 DEVELOPMENT FOR ADVANCED LIFE CYCLE COSTING METHOD FOR TECHNOLOGY BENEFITS/COSTS/RISK ASSESSMENT
 03/26/1999 - 12/31/2001 FY99: \$111,000 Total: \$111,000
Prin. Invest.: D N MAVRIS
Tech. Officer: LARC/M D MOORE, LARC/P A GELHAUSEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2175 **GEORGIA INSTITUTE OF TECHNOLOGY** **3999**
 RAPIDLY RE-CONFIGURABLE FLIGHT SIMULATOR TOOLS FOR CREW VEHICLE INTEGRATION RESEARCH AND DESIGN
 04/09/1999 - 03/29/2002 FY99: \$85,819 Total: \$85,819
Prin. Invest.: A R PRITCHETT
Tech. Officer: LARC/P C SCHUTTE, LARC/A C TRUJILLO
CASE Category: 22 - COMPUTER SCIENCE

NAG 1 2202 **GEORGIA INSTITUTE OF TECHNOLOGY** **4000**
 SAGE II OZONE (V6.0) ANAL W/EMPHASIS ON LONG TERM TRENDS IN THE LOWER STRATOSPHERE (NRA-98-OES-04)
 06/11/1999 - 07/07/2002 FY99: \$58,700 Total: \$58,700
Prin. Invest.: D M CUNNOLD
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2243 **GEORGIA INSTITUTE OF TECHNOLOGY** **4001**
 DEMO/EVAL OF INTELLIGENT FLT PROPULSION & CONTROL SYS UNDER UNANTICIPATED CRITICAL FAILURE CONDITION
 09/27/1999 - 09/30/2001 FY99: \$45,953 Total: \$45,953
Prin. Invest.: A J CALISE
Tech. Officer: LARC/P W GOODE
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 1 2245 **GEORGIA INSTITUTE OF TECHNOLOGY** **4002**
 INCONEL HOLLOW SPHERE STRUCTURES FOR LIGHTWEIGHT PANELS — NRA 99-LARC-1
 09/22/1999 - 01/31/2002 FY99: \$50,000 Total: \$50,000
Prin. Invest.: J K COCHRAN, J K LEE, T H SANDERS
Tech. Officer: LARC/W D BREWER, LARC/S J HALES
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 2 1047 **GEORGIA INSTITUTE OF TECHNOLOGY** **4003**
 TECHNOLOGY & RISK ASSESSMENT USING A ROBUST DESIGN SIMULATION METHODOLOGY
 05/17/1996 - 07/31/1998 FY99: \$0 Total: \$161,402
Prin. Invest.: D MAVRIS
Tech. Officer: ARC/T L GALLOWAY, ARC/P A GELHAUSEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1103 **GEORGIA INSTITUTE OF TECHNOLOGY** **4004**
 MODELING & DATA ANALYSIS OF SONEX OBSERVATIONS
 01/13/1997 - 01/31/2000 FY99: \$108,322 Total: \$320,159
Prin. Invest.: S C LIU
Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1174 **GEORGIA INSTITUTE OF TECHNOLOGY** **4005**
 INTELLIGENT FLIGHT PROPULSION & CONTROL SYSTEM FOR ENHANCE FLIGHT SAFETY
 02/06/1998 - 02/29/2000 FY99: \$0 Total: \$99,289
Prin. Invest.: A J CALISE
Tech. Officer: ARC/J TOTAH
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1178 **GEORGIA INSTITUTE OF TECHNOLOGY** **4006**
 USE OF COCKPIT DISPLAY OF TRAFFIC INFORMATION FOR INCREASED PILOT INVOLVEMENT IN AIR TRAFFIC MGMT
 02/19/1998 - 12/31/1999 FY99: \$0 Total: \$80,001
Prin. Invest.: A R PRITCHETT
Tech. Officer: ARC/W W JOHNSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1262 **GEORGIA INSTITUTE OF TECHNOLOGY** **4007**
 QUALITY-OF-SERVICE PROBLEMS OF REAL-TIME VBR TRAFFIC IN
 HYBRID NETWORKS
 09/03/1998 - 08/31/2000 FY99: \$169,689 Total: \$302,434
Prin. Invest.: I F AKYILDIZ
Tech. Officer: ARC/C M FALSETTI, ARC/B H WITHAKER
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1291 **GEORGIA INSTITUTE OF TECHNOLOGY** **4008**
 SIMULATION OF THE NATIONAL AIRSPACE SYSTEM FOR SAFETY ANALYSIS
 02/02/1999 - 09/30/1999 FY99: \$86,341 Total: \$86,341
Prin. Invest.: D GOLDSMAN, A R PRITCHETT
Tech. Officer: ARC/C I STATLER, ARC/M C CONNORS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1314 **GEORGIA INSTITUTE OF TECHNOLOGY** **4009**
 ENABLING CSPA OPERATIONS THROUGH PILOT DEVELOPMENT IN LONGITUDINAL APPROACH SPACING
 04/01/1999 - 12/31/1999 FY99: \$61,384 Total: \$61,384
Prin. Invest.: A B PRITCHETT
Tech. Officer: ARC/V BATTISTE, ARC/W W JOHNSON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1610 **GEORGIA INSTITUTE OF TECHNOLOGY** **4010**
 PREMIXED TURBULENT FLAME PROPAGATION IN MICROGRAVITY
 05/25/1994 - 05/24/1998 FY99: \$0 Total: \$448,952
Prin. Invest.: S MENON
Tech. Officer: GRC/H D ROSS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1682 **GEORGIA INSTITUTE OF TECHNOLOGY** **4011**
 DEVELOPMENT OF QUIET PRESSURE REDUCING DEVICES AND NOISE SOURCE LOCATION TECHNIQUES
 11/17/1994 - 12/02/1997 FY99: \$0 Total: \$265,285
Prin. Invest.: K K ATIQUA
Tech. Officer: GRC/E A KREJSA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1894 **GEORGIA INSTITUTE OF TECHNOLOGY** **4012**
 NON-COALESCENCE EFFECTS IN MICROGRAVITY
 06/17/1996 - 06/16/2000 FY99: \$120,000 Total: \$437,015
Prin. Invest.: G P NEITZEL
Tech. Officer: GRC/R S KARDA
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1949 **GEORGIA INSTITUTE OF TECHNOLOGY** **4013**
 THE DEVELOPMENT OF NOVEL, HIGH-FLUX, HEAT TRANSFER CELLS FOR THERMAL CONTROL IN MICROGRAVITY
 09/17/1996 - 09/12/2000 FY99: \$120,000 Total: \$360,000
Prin. Invest.: M K SMITH, A GLEZER
Tech. Officer: GRC/B SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2006 **GEORGIA INSTITUTE OF TECHNOLOGY** **4014**
 TERRESTRIAL EXPERIMENTS ON G-GITTER EFFECTS ON TRANSPORT & PATTERN FORMATION
 01/24/1997 - 07/16/2000 FY99: \$75,000 Total: \$207,327
Prin. Invest.: M F SCHATZ, H L SWINNEY
Tech. Officer: GRC/W DUVAL, GRC/T K GLASGOW
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2192 **GEORGIA INSTITUTE OF TECHNOLOGY** **4015**
 PREMIXED TURBULENT FLAME PROPAGATION IN MICROGRAVITY
 08/19/1998 - 12/31/1998 FY99: \$0 Total: \$48,343
Prin. Invest.: S MENON
Tech. Officer: GRC/K R SACKSTEDER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2205 **GEORGIA INSTITUTE OF TECHNOLOGY** **4016**
 NONLINEAR DYNAMIC ANALYSIS OF DISORDERED BLADED-DISK ASSEMBLIES
 10/07/1998 - 09/30/1999 FY99: \$14,999 Total: \$14,999
Prin. Invest.: O G MCGEE
Tech. Officer: GRC/G L STEFKO
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 1490 **GEORGIA INSTITUTE OF TECHNOLOGY** **4017**
 INVESTIGATION OF PASSIVE ATMOSPHERIC SOUNDING USING MILLIMETER AND SUBMILLIMETER-WAVELENGTH CHANNEL
 12/10/1990 - 06/30/1998 FY99: \$0 Total: \$509,946
Prin. Invest.: A J GASIEWSKI
Tech. Officer: GSFC/R F ADLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2227 **GEORGIA INSTITUTE OF TECHNOLOGY** **4018**
 INTELLIGENT COMMAND AND CONTROL SYSTEMS FOR SATELLITE GROUND OPERATIONS
 03/12/1993 - 03/31/1999 FY99: \$0 Total: \$267,245
Prin. Invest.: C M MITCHELL
Tech. Officer: GSFC/A W STOFFEL
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2789 **GEORGIA INSTITUTE OF TECHNOLOGY** **4019**
 TOWARDS A THEORY OF TROPICAL/MIDLATITUDE MASS EXCHANGE FROM THE EARTH'S SURFACE THROUGH THE ...
 11/14/1994 - 11/30/1997 FY99: -\$23,205 Total: \$188,452
Prin. Invest.: D E HARTLEY
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2919 **GEORGIA INSTITUTE OF TECHNOLOGY** **4020**
 POTENTIAL VORTICITY-BASED DIAGNOSIS OF SEASONAL AND INTRASEASONAL VARIABILITY IN AN ASSIMILATED...
 03/22/1995 - 03/31/1998 FY99: -\$1 Total: \$165,103
Prin. Invest.: R X BLACK
Tech. Officer: GSFC/S SCHUBERT
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3634 **GEORGIA INSTITUTE OF TECHNOLOGY** **4021**
 LABORATORY INVESTIGATIONS OF STRATOSPHERIC AND UPPER ATMOSPHERIC CHEMISTRY
 02/25/1997 - 12/31/1999 FY99: \$153,900 Total: \$466,575
Prin. Invest.: P H WINE
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3855 **GEORGIA INSTITUTE OF TECHNOLOGY** **4022**
 THE YANGTZE DELTA OF CHINA AS AN EVOLVING METRO-AGE (148-65-80-04)
 02/03/1997 - 11/30/1999 FY99: \$479,272 Total: \$1,446,050
Prin. Invest.: W L CHAMEIDES
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4190 **GEORGIA INSTITUTE OF TECHNOLOGY** **4023**
 LABORATORY EVALUATION AND APPLICATION OF MICROWAVE UNDER
 SIMULATED CONDITIONS FOR PLANETARY ATMOSPHE
 06/10/1997 - 12/31/1999 FY99: \$109,377 Total: \$253,377
Prin. Invest.: D G STEFFES
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6284 **GEORGIA INSTITUTE OF TECHNOLOGY** **4024**
 DEVELOPMENT OF AIRBORNE EDDY-CORRELATION FLUX MEAS OXIDES
 OF NITROGEN
 09/26/1997 - 10/31/1998 FY99: -\$6,512 Total: \$143,293
Prin. Invest.: D SANDHOLM
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7450 **GEORGIA INSTITUTE OF TECHNOLOGY** **4025**
 RELATIONSHIPS BETWEEN INTERSTELLAR AND INTERPLANETARY
 GRAINS
 07/02/1998 - 06/30/2000 FY99: \$30,000 Total: \$59,000
Prin. Invest.: D P BRADLEY, NONE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7471 **GEORGIA INSTITUTE OF TECHNOLOGY** **4026**
 POTENTIAL VORTICITY-BASED DIAGNOSES OF SEASONAL AND INTRA-
 SEASONAL VARIABILITY IN AN ASSIMILATED
 06/08/1998 - 03/31/2000 FY99: \$39,600 Total: \$92,000
Prin. Invest.: R X BLACK
Tech. Officer: GSFC/S SCHUBERG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7752 **GEORGIA INSTITUTE OF TECHNOLOGY** **4027**
 PHOTOIONIZATION AND RELATED DIELECTRONIC/RADIATIVE RECOMBINA-
 TION AND ELASTIC SCATTERING CROSS SECTION
 11/25/1998 - 12/31/1999 FY99: \$49,000 Total: \$49,000
Prin. Invest.: S T MANSON
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 8 1245 **GEORGIA INSTITUTE OF TECHNOLOGY** **4028**
 EFFECT OF GRAVITY ON THE EVOLUTION OF SPATIAL ARRANGEMENT OF
 FEATURES IN MICROSTRUCTURES
 05/10/1996 - 05/09/2000 FY99: \$72,500 Total: \$283,750
Prin. Invest.: A M GOKHALE
Tech. Officer: MSFC/P DOTY, MSFC/R POWER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 8 1302 **GEORGIA INSTITUTE OF TECHNOLOGY** **4029**
 RESEARCH "LAUNCH VEHICLE SYSTEMS ANALYSIS"
 07/11/1996 - 10/31/1998 FY99: \$0 Total: \$131,610
Prin. Invest.: D R OLDS
Tech. Officer: MSFC/U HUETER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 8 1547 **GEORGIA INSTITUTE OF TECHNOLOGY** **4030**
 FUNDING FOR LAUNCH VEHICLE ASSESSMENT FOR SPACE SOLAR POWER
 08/11/1998 - 12/15/1998 FY99: \$0 Total: \$50,000
Prin. Invest.: J R OLDS
Tech. Officer: MSFC/J L HOWELL
CASE Category: 13 - PHYSICS

NAG 8 1597 **GEORGIA INSTITUTE OF TECHNOLOGY** **4031**
 R/S CONCEPTUAL DESIGN FOR ADVANCED SPACE TRANSPORTATION
 SYSTEMS
 12/16/1998 - 12/15/2001 FY99: \$233,000 Total: \$233,000
Prin. Invest.: J R OLDS
Tech. Officer: MSFC/G M LYLES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 8 1638 **GEORGIA INSTITUTE OF TECHNOLOGY** **4032**
 RESEARCH ENTITLED: "FAULT TOLERANT NONLINEAR ADAPTATIVE
 FLIGHT CONTROL FOR THE X-33"
 09/24/1999 - 12/31/2000 FY99: \$115,000 Total: \$115,000
Prin. Invest.: A CALISE
Tech. Officer: MSFC/R DABNEY, MSFC/J HANSON
CASE Category: 46 - MECHANICAL ENGR

NAG 9 726 **GEORGIA INSTITUTE OF TECHNOLOGY** **4033**
 OPTIMIZATION FUZZY ADAPTIVE CONTROL & INTELLIGENT AUTONOMOUS
 SPACE
 05/11/1994 - 06/30/1998 FY99: \$0 Total: \$234,939
Prin. Invest.: A O ESOGBUE
Tech. Officer: JSC/J ATKINSON
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAGW 2753 **GEORGIA INSTITUTE OF TECHNOLOGY** **4034**
 ACOUSTIC CHARGE TRANSPORT IMAGER FOR HIGH DEFINITION TELEVI-
 SION APPLICATIONS: PROOF OF CONCEPT DEMO
 09/27/1991 - 12/31/1998 FY99: \$0 Total: \$7,799,446
Prin. Invest.: W D HUNT
Tech. Officer: HQ/T BENTSEN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAGW 3886 **GEORGIA INSTITUTE OF TECHNOLOGY** **4035**
 PARALLELIZATION AND VISUAL ANALYSIS OF DYNAMICAL/ CHEMICAL
 ATMOSPHERIC MODELS
 03/09/1994 - 09/30/1997 FY99: -\$1 Total: \$449,908
Prin. Invest.: K SCHWAN
Tech. Officer: HQ/G H MUCKLOW, HQ/J H BREDECAMP
CASE Category: 22 - COMPUTER SCIENCE

NAGW 5176 **GEORGIA INSTITUTE OF TECHNOLOGY** **4036**
 COMPARISON OF INTERPLANETARY AND INTERSTELLAR DUST
 10/25/1996 - 03/31/1998 FY99: \$0 Total: \$14,000
Prin. Invest.: J P BRADLEY
Tech. Officer: HQ/P ROGERS, HQ/H C BRINTON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 1 18938 **GEORGIA INSTITUTE OF TECHNOLOGY** **4037**
 SAGE III EXPERIMENT SCIENTIFIC SUPPORT/CUNNOLD
 02/20/1990 - 01/31/2005 FY99: \$60,000 Total: \$499,700
Prin. Invest.: D M CUNNOLD
Tech. Officer: LARC/G L MADDREA/L R MCMASTER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 3 27361 **GEORGIA INSTITUTE OF TECHNOLOGY** **4038**
 RF PROPAGATION EFFECTS
 08/10/1994 - 09/30/1999 FY99: \$0 Total: \$129,834
Prin. Invest.: D HOWARD, P STEFFES
Tech. Officer: GRC/R BAUER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 1 229 **GEORGIA INSTITUTE OF TECHNOLOGY** **4039**
 IMPROVING CONCEPTUAL DESIGN FOR LAUNCH VEHICLES MY 1/3
 06/10/1996 - 09/22/1999 FY99: \$50,785 Total: \$147,000
Prin. Invest.: J R OLDS
Tech. Officer: LARC/R A LEPSCH, LARC/C H ELDRED
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 1 296 **GEORGIA INSTITUTE OF TECHNOLOGY** **4040**
 MEASUREMENTS OF NO AND NO2 OVER THE TROPICAL PACIFIC
 04/28/1998 - 05/31/2001 FY99: \$141,001 Total: \$437,001
Prin. Invest.: S T SANDHOLM
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 301 **GEORGIA INSTITUTE OF TECHNOLOGY** **4041**
 MEASUREMENT OF OH, H2SO4, HNO3, AND DMSO ABOARD THE P-3B
 AIRCRAFT
 05/27/1998 - 05/31/2001 FY99: \$101,000 Total: \$417,803
Prin. Invest.: F L EISELE, R L MAULDIN
Tech. Officer: LARC/J L ROPER, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 306 **GEORGIA INSTITUTE OF TECHNOLOGY** **4042**
 TROPOSPHERIC DIAGNOSTIC MODELING STUDIES OF PEM- TROPICS B
 FIELD DATA: INVESTIGATION OF THE
 07/10/1998 - 04/30/2002 FY99: \$130,522 Total: \$191,809
Prin. Invest.: D D DAVIS, G CHEN
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 317 **GEORGIA INSTITUTE OF TECHNOLOGY** **4043**
 MODELING AND DATA ANALYSIS OF PEM-TROPICS B OBSERVATIONS
 08/17/1998 - 07/31/2001 FY99: \$73,000 Total: \$239,973
Prin. Invest.: S C LIU
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 933 **GEORGIA INSTITUTE OF TECHNOLOGY** **4044**
 CULTURAL VARIABILITY IN CREW COMMUNICATION
 09/12/1995 - 03/31/1999 FY99: \$47,000 Total: \$276,000
Prin. Invest.: K J KNOESPEL, U M FISCHER-LOSS
Tech. Officer: ARC/J M ORASANU
CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NCC 2 945 **GEORGIA INSTITUTE OF TECHNOLOGY** **4045**
 ROTORCRAFT CENTERS OF EXCELLENCE
 05/03/1996 - 12/31/1999 FY99: \$1,194,201 Total: \$4,773,731
Prin. Invest.: D C SCHRAGE, D A PETERS, K B BOTA
Tech. Officer: ARC/Y H YU, ARC/J M DAVIS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 961 **GEORGIA INSTITUTE OF TECHNOLOGY** **4046**
 MODELING, TRAINING, AND AIDING IN AEROSPACE SYSTEMS
 07/18/1996 - 05/31/2000 FY99: \$160,194 Total: \$571,333
Prin. Invest.: C M MITCHELL
Tech. Officer: ARC/E A PALMER, ARC/K CORKER
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 981 **GEORGIA INSTITUTE OF TECHNOLOGY** **4047**
 NONLINEAR FLIGHT CONTROL FOR TILT ROTOR AIRCRAFT OPERATING IN
 THE TERMINAL AREA
 03/17/1997 - 08/31/1999 FY99: \$80,000 Total: \$164,374
Prin. Invest.: A J CALISE
Tech. Officer: ARC/R T N. CHEN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 1124 **GEORGIA INSTITUTE OF TECHNOLOGY** **4048**
 HOW PROFESSIONAL PILOTS PERCEIVE & RESPOND TO AMBIGUOUS &
 UNCERTAIN DECISION SITUATIONS
 07/01/1999 - 01/31/2000 FY99: \$75,288 Total: \$75,288
Prin. Invest.: U M FISCHER
Tech. Officer: ARC/J M ORASANU
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 5332 **GEORGIA INSTITUTE OF TECHNOLOGY** **4049**
 EVALUATION OF ADVANCED THERMAL PROTECTION TECHNIQUES FOR
 FUTURE REUSABLE LAUNCH VEHICLES
 07/20/1999 - 09/30/1999 FY99: \$10,000 Total: \$10,000
Prin. Invest.: R OLDS
Tech. Officer: ARC/P KOLOZIEJ, ARC/D J RASKY
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 592 **GEORGIA INSTITUTE OF TECHNOLOGY** **4050**
 APPLICATION OF THE GA TECH GENERIC IPPD METHODOLOGY TO SUP-
 PORT IMPLEMENTATION OF THE NASA/INDUSTRY
 12/30/1997 - 03/31/1999 FY99: \$0 Total: \$121,866
Prin. Invest.: D P SCHRAGE, D N MAVRIS
Tech. Officer: GRC/C L MEYERS, GRC/R M PLENCNER
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 711 **GEORGIA INSTITUTE OF TECHNOLOGY** **4051**
 DAMAGE MECHANICS MODELING FOR LIFE PREDICTION OF ULTRA HIGH
 TEMPERATURE POLYMER MATRIX COMPOSITES
 06/07/1999 - 06/06/2000 FY99: \$100,001 Total: \$100,001
Prin. Invest.: D TALREJA
Tech. Officer: GRC/J R ELLIS
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 8 108 **GEORGIA INSTITUTE OF TECHNOLOGY** **4052**
 HIGHLY REUSEABLE SPACE TRANSPORTATION SYSTEM CONCEPT EVAL-
 UATION
 06/06/1996 - 05/31/1998 FY99: -\$51 Total: \$55,199
Prin. Invest.: J R OLDS
Tech. Officer: GSFC/J T HOWELL
CASE Category: 41 - AERONAUTICAL ENGR

NGT 51346 **GEORGIA INSTITUTE OF TECHNOLOGY** **4053**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 08/22/1994 - 12/31/1997 FY99: -\$781 Total: \$65,219
Prin. Invest.: M K SMITH
Tech. Officer: HQ/G A LESANE
CASE Category: 46 - MECHANICAL ENGR

NGT 1 52111 **GEORGIA INSTITUTE OF TECHNOLOGY** **4054**
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 06/15/1995 - 12/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: M R KIRBY, D N MAVRIS (ADVISOR)
Tech. Officer: LARC/P A GELHAUSEN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52132 **GEORGIA INSTITUTE OF TECHNOLOGY** **4055**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/06/1996 – 06/30/2000 FY99: \$22,000 Total: \$76,000
Prin. Invest.: A GLEZER, A GLEZER (ADVISOR)
Tech. Officer: LARC/R D JOSLIN
CASE Category: 46 – MECHANICAL ENGR

NGT 1 52143 **GEORGIA INSTITUTE OF TECHNOLOGY** **4056**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 07/03/1996 – 08/14/1999 FY99: \$12,000 Total: \$66,000
Prin. Invest.: S DONLUK
Tech. Officer: LARC/I S RAJU, LARC/C C POE, JR.
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52156 **GEORGIA INSTITUTE OF TECHNOLOGY** **4057**
 NASA MDA FELLOWSHIP PROGRAM NASA MULTIDISCIPLINARY DESIGN AND ANALYSIS
 01/24/1997 – 11/30/1998 FY99: \$1 Total: \$400,001
Prin. Invest.: D P SCHRAGE
Tech. Officer: LARC/G L GILES
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52162 **GEORGIA INSTITUTE OF TECHNOLOGY** **4058**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/11/1997 – 06/30/2000 FY99: \$22,000 Total: \$66,001
Prin. Invest.: B V GIBBENS
Tech. Officer: LARC/J E GARDNER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52163 **GEORGIA INSTITUTE OF TECHNOLOGY** **4059**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/03/1997 – 09/02/2000 FY99: \$44,000 Total: \$66,001
Prin. Invest.: J R OLDS, D W WAY
Tech. Officer: LARC/R A LEPSCH, LARC/L R ROWELL
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52167 **GEORGIA INSTITUTE OF TECHNOLOGY** **4060**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 12/01/1997 – 11/30/2000 FY99: \$22,000 Total: \$54,000
Prin. Invest.: K A CUNEFARE
Tech. Officer: HQ/P BACON
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52170 **GEORGIA INSTITUTE OF TECHNOLOGY** **4061**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 04/15/1997 – 06/30/2000 FY99: \$22,000 Total: \$54,001
Prin. Invest.: F MISTREE
Tech. Officer: LARC/T A ZANG
CASE Category: 46 – MECHANICAL ENGR

NGT 2 52253 **GEORGIA INSTITUTE OF TECHNOLOGY** **4062**
 THERMAL ANALYSIS & TPS DESIGN OF ABLE/LEAD HPerson IC VEHICLES
 07/20/1999 – 09/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: S M RUFFIN, V S MCKAY
Tech. Officer: ARC/P F WERCINSKI, ARC/T C TAM
CASE Category: 41 – AERONAUTICAL ENGR

NGT 2 52255 **GEORGIA INSTITUTE OF TECHNOLOGY** **4063**
 IMPLEMENTATION OF INTELLINET FLIGHT CONTROL ON THE NASA STONE SOUP SIMULATOR
 07/20/1999 – 07/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: A CALIS
Tech. Officer: ARC/J KANESHIGE, ARC/S LAU
CASE Category: 41 – AERONAUTICAL ENGR

NGT 3 52329 **GEORGIA INSTITUTE OF TECHNOLOGY** **4064**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/10/1997 – 09/14/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: E W ZEGURA
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 22 – COMPUTER SCIENCE

NGT 3 52334 **GEORGIA INSTITUTE OF TECHNOLOGY** **4065**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/11/1997 – 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: G T ZHOU
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 49 – ENGINEERING, OTHER

NGT 3 52338 **GEORGIA INSTITUTE OF TECHNOLOGY** **4066**
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM
 09/11/1997 – 08/03/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M LIU
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 49 – ENGINEERING, OTHER

NGT 4 52405 **GEORGIA INSTITUTE OF TECHNOLOGY** **4067**
 GRADUATE STUDENT RESEARCHERS PROGRAM ROBUST LINEAR & NON-LINEAR CONTROL FOR JET ENGINE
 06/25/1997 – 07/01/2000 FY99: \$22,000 Total: \$65,860
Prin. Invest.: J CORRADO, W HADDAD
Tech. Officer: DFRC/K K GUPTA
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 31 **GEORGIA INSTITUTE OF TECHNOLOGY** **4068**
 LOSSLESS IMAGE COMPRESSION USING ALPHABET CONSTRAINED FILTER BANKS
 07/29/1996 – 09/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: M SMITH
Tech. Officer: GSFC/G SOFFEN
CASE Category: 22 – COMPUTER SCIENCE

NGT 5 30069 **GEORGIA INSTITUTE OF TECHNOLOGY** **4069**
 DEVELOPMENT OF A SELECT ION ATMOSPHERIC PRESSURE C S SPECTROMETRY TECHNIQUE FOR THE MEASUREMENT OF T
 09/10/1997 – 08/31/2000 FY99: \$22,000 Total: \$65,950
Prin. Invest.: D WINE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30099 **GEORGIA INSTITUTE OF TECHNOLOGY** **4070**
 THE LABORATORY INVESTIGATION OF THE DIMETHYL SULFIDE/S. URBANSKI
 09/15/1997 – 02/28/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: P H WINE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 40023 **GEORGIA INSTITUTE OF TECHNOLOGY** **4071**
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 02/03/1997 - 01/31/2000 FY99: \$475,000 Total: \$1,284,751
Prin. Invest.: E ARMANIOS
Tech. Officer: GSFC/L KEEFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52830 **GEORGIA INSTITUTE OF TECHNOLOGY** **4072**
 GRAD STUDENT RESEARCH PROGRAM FOR JULIE R. KOKAN
 09/20/1996 - 09/10/1999 FY99: -\$7,977 Total: \$58,023
Prin. Invest.: J R KOKAN
Tech. Officer: MSFC/D H SU
CASE Category: 49 - ENGINEERING, OTHER

NGT 8 52854 **GEORGIA INSTITUTE OF TECHNOLOGY** **4073**
 DEVELOPMENT OF A TOOL FOR CONCEPTUAL DESIGN OF ROCKET BASED
 COMBINED CYCLE PROPULSION SYSTEMS
 07/21/1998 - 05/14/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J R OLDS
Tech. Officer: MSFC/J F DOWDY
CASE Category: 41 - AERONAUTICAL ENGR

NGT10 52602 **GEORGIA INSTITUTE OF TECHNOLOGY** **4074**
 GRADUATE STUDENT RESEARCH PROGRAM
 06/20/1995 - 06/30/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: H LIPKIN
Tech. Officer: KSC/R CAIMI
CASE Category: 46 - MECHANICAL ENGR

NAG 5 496 **GEORGIA SOUTHERN UNIVERSITY** **4075**
 LABORATORY STUDIES OF SMALL CARBON GRANDULES
 02/01/1985 - 03/31/1998 FY99: -\$2,271 Total: \$170,599
Prin. Invest.: R H NELSON
Tech. Officer: GSFC/B DONN, GSFC/J A NUTH
CASE Category: 12 - CHEMISTRY

NAG 9 913 **GEORGIA SOUTHERN UNIVERSITY** **4076**
 PHYSICS OF INTERPLANETARY DUST COLLECTION WITH AEROGEL
 09/27/1996 - 03/30/1998 FY99: -\$881 Total: \$14,119
Prin. Invest.: W W ANDERSON
Tech. Officer: JSC/F HORZ
CASE Category: 13 - PHYSICS

NCC 5 254 **GEORGIA SOUTHERN UNIVERSITY** **4077**
 "PHYSICAL PROPERTIES OF PLANETARY MOLECULES", GSFC CONTROL
 NUMBER 5-3326
 10/30/1997 - 10/31/2000 FY99: \$0 Total: \$83,883
Prin. Invest.: R NELSON, NONE
Tech. Officer: GSFC/J ALLEN
CASE Category: 12 - CHEMISTRY

NAG 5 4592 **GEORGIA SOUTHWESTERN STATE UNIVERSITY** **4078**
 X-RAY DIFFRACTOMETER/FLUORESCENCE SPECTROMETER FOR
 05/09/1997 - 05/31/1998 FY99: -\$29,586 Total: \$30,414
Prin. Invest.: P W ANDERSON
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 438 **GEORGIA STATE UNIVERSITY** **4079**
 SELECTION OF BEHAVIORAL TASKS AND DEVELOPMENT OF SWARE FOR
 EVALUATION OF RHESUS MONKEY BEHAVIOR DURI
 03/01/1987 - 12/31/1998 FY99: \$0 Total: \$1,848,157
Prin. Invest.: D M RUMBAUGH, E S SAVAGE, W K RICHARDSON
Tech. Officer: ARC/P X CALLAHAN, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1271 **GEORGIA STATE UNIVERSITY** **4080**
 ADOPTION OF RHESUS MACAQUES TO HYPERDYNAMIC ENVIRONMENT
 (BEHAVIOR & PERFORMANCE)
 10/21/1998 - 12/31/1999 FY99: \$75,000 Total: \$75,000
Prin. Invest.: D A WASHBURN, R RUMBAUGH
Tech. Officer: ARC/R E GRINDELAND, ARC/K L SOUZA
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 2979 **GEORGIA STATE UNIVERSITY** **4081**
 IUE ATLAS OF RECONSTRUCTED SPECTRA OF HOT BINARY STARS
 FORMATION AND GALAXY EVOL.
 07/10/1995 - 12/31/1999 FY99: -\$186 Total: \$102,783
Prin. Invest.: D R GIES
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3098 **GEORGIA STATE UNIVERSITY** **4082**
 INTRADAY VARIABILITY IN ACTIVE GALACTIC NUCLEI
 10/11/1995 - 04/14/1999 FY99: \$0 Total: \$197,100
Prin. Invest.: P J WILTA
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3667 **GEORGIA STATE UNIVERSITY** **4083**
 A MULTIWAVELENGTH STUDY OF THE GAMMA-RAY BLAZAR PK
 12/31/1996 - 12/31/1998 FY99: \$0 Total: \$4,000
Prin. Invest.: H MILLER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 4091 **GEORGIA STATE UNIVERSITY** **4084**
 ABSORPTION AND EMISSION OF EXCITED AND GROUND STATE AND
 VISIBLE WAVELENGTH RANGES
 03/13/1997 - 06/30/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: D T MANSON
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4950 **GEORGIA STATE UNIVERSITY** **4085**
 WAVELENGTH-TUNABLE NOVEL SEMICONDUCTOR FIR DETECTOR
 RESEARCH
 06/23/1997 - 12/31/1999 FY99: \$40,000 Total: \$128,000
Prin. Invest.: D PERERA
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 6904 **GEORGIA STATE UNIVERSITY** **4086**
 CROSS-CORRELATION ANALYSIS OF UV PROFILE VARIATIONS AND NON-
 RADIAL PULSATIONS IN BESTARS
 02/06/1998 - 01/31/2000 FY99: \$35,600 Total: \$65,300
Prin. Invest.: D GIES
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6929 **GEORGIA STATE UNIVERSITY** **4087**
 ORFEUS EDUCATIONAL OUTREACH PROGRAM
 01/29/1998 – 01/31/2000 FY99: \$0 Total: \$10,047
Prin. Invest.: H MILLER
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 – ASTRONOMY

NAG 5 7120 **GEORGIA STATE UNIVERSITY** **4088**
 X-RAY/OPTICAL MONITORING OF AKN 120
 04/13/1998 – 04/14/1999 FY99: \$0 Total: \$10,875
Prin. Invest.: R MILLER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7324 **GEORGIA STATE UNIVERSITY** **4089**
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 04/28/1998 – 04/30/2000 FY99: \$3,500 Total: \$7,000
Prin. Invest.: H MILLER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 7830 **GEORGIA STATE UNIVERSITY** **4090**
 SIMULTANEOUS RXTE/OSSE OBSERVATIONS OF THE SEYFERT 1 GALAXY
 AKN 120
 11/17/1998 – 11/30/1999 FY99: \$5,000 Total: \$5,000
Prin. Invest.: H MILLER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG10 235 **GEORGIA STATE UNIVERSITY** **4091**
 PROVIDE A SURVEY MATHEMATICAL STATISTICS COURSE AND BASIC STA-
 TISTICAL QUALITY CONTROL COURSE
 09/30/1997 – 09/30/1998 FY99: -\$9,859 Total: \$38,042
Prin. Invest.: R PATTERSON
Tech. Officer: KSC/R TELLEY
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 8 1107 **KENNESAW STATE COLLEGE** **4092**
 JOVE
 10/24/1994 – 05/31/2000 FY99: \$0 Total: \$36,000
Prin. Invest.: T LAROSA
Tech. Officer: MSFC/F SIX
CASE Category: 11 – ASTRONOMY

NAG 9 1071 **MERCER UNIVERSITY CENTRAL OFFICE** **4093**
 SUMMER FACULTY DIRECTOR'S GRANT
 01/20/1999 – 12/31/1999 FY99: \$15,500 Total: \$15,500
Prin. Invest.: B W TOBIN
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6602 **MOREHOUSE COLLEGE** **4094**
 AN INFRARED STUDY OF ORTHO AND PARA HYDROGEN ON IN TERSTEL-
 LAR GRAINS
 11/13/1997 – 10/31/2000 FY99: \$0 Total: \$221,667
Prin. Invest.: J KING, JR.
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAG 8 1231 **MOREHOUSE COLLEGE** **4095**
 R/S A NASA/UNIVERSITY JOINT VENTURE IN SPACE SCIENCE (JOVE), THIS
 DOCUMENT 1ST YEAR FUNDING
 10/31/1996 – 08/10/1999 FY99: \$0 Total: \$100,000
Prin. Invest.: G WALKER, O H AKPAN
Tech. Officer: MSFC/E COTHRAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 8 1492 **MOREHOUSE COLLEGE** **4096**
 INSPIRING CAREERS IN ENGINEERING, MATHEMATICS, AND SCIENCE
 (ICEMS)
 06/04/1998 – 09/07/2000 FY99: \$99,137 Total: \$198,274
Prin. Invest.: E MCDONALD
Tech. Officer: MSFC/A BEAM
CASE Category: 21 – MATHEMATICS

NAG 8 1636 **MOREHOUSE COLLEGE** **4097**
 "USING THE NASA ROTATING BIOREACTOR TO STUDY ROLE OF NITRIC
 OXIDE IN BREAST-INDUCED ANGIOGENESIS"
 09/30/1999 – 09/29/2001 FY99: \$114,057 Total: \$114,057
Prin. Invest.: G L SANFORD
Tech. Officer: MSFC/R RICHMOND
CASE Category: 61 – PSYCHOLOGY BIOLOGY

NAG 9 964 **MOREHOUSE COLLEGE** **4098**
 SIMULATED MICROGRAVITY ...
 09/25/1997 – 12/30/1999 FY99: \$83,300 Total: \$200,000
Prin. Invest.: K DUTT
Tech. Officer: JSC/K KRISHEN
CASE Category: 56 – MEDICAL

NGT 8 52847 **MOREHOUSE COLLEGE** **4099**
 STRATEGIC PREPAREDNESS ADVANCING CAREERS IN ENGINEERING/SCI-
 ENCE
 01/30/1998 – 12/31/1998 FY99: \$0 Total: \$1,428,848
Prin. Invest.: O CLAYTON
Tech. Officer: MSFC/W LOVE
CASE Category: 79 – SOCIAL SCIENCE, OTHER

NGT 8 52872 **MOREHOUSE COLLEGE** **4100**
 STRATEGIC PREPAREDNESS ADVANCING CAREERS IN ENGINEERING
 03/08/1999 – 12/31/1999 FY99: \$1,551,744 Total: \$1,551,744
Prin. Invest.: B EVANS
Tech. Officer: MSFC/W LOVE, MSFC/A C BEAM
CASE Category: 79 – SOCIAL SCIENCE, OTHER

NAG 2 1215 **MOREHOUSE SCHOOL MED** **4101**
 PRE-METARSAL DIFFERENTIATION & MINERALIZATION
 05/04/1998 – 06/30/2000 FY99: \$80,734 Total: \$100,789
Prin. Invest.: B J KLEMENT
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 2 1381 **MOREHOUSE SCHOOL MED** **4102**
 BONE & CALCIUM METABOLISM IN DAHL SALT SENSITIVE & SALT RESES-
 TANT RATS WITH UNLOADED HINDLIMBS
 09/03/1999 – 08/31/2000 FY99: \$63,598 Total: \$63,598
Prin. Invest.: M THIERRY-PALMER
Tech. Officer: ARC/B J COLLINS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 2 6029 **MOREHOUSE SCHOOL MED** **4103**
 THE NASASPACE BIOLOGY RESEARCH ASSOCIATE PROGRAM F OR THE
 21ST CENTURY
 03/01/1999 - 12/31/1999 FY99: \$48,123 Total: \$48,123
Prin. Invest.: G SONNENFELD
Tech. Officer: ARC/B LUNA, ARC/R GRYNES
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 644 **MOREHOUSE SCHOOL MED** **4104**
 CELLULAR RESPONSE TO HYPOGRAVITY & HYPERGRAVITY STRESS
 09/22/1992 - 05/18/1998 FY99: -\$13,499 Total: \$472,501
Prin. Invest.: G L SANFORD
Tech. Officer: JSC/C SAMS
 CASE Category: 56 - MEDICAL

NAG 9 852 **MOREHOUSE SCHOOL MED** **4105**
 ASSESSING THE PUTATIVE MECHANISMS OF GRAVITY INDUCED CELLU-
 LAR CHANGES
 09/28/1995 - 09/30/1998 FY99: \$0 Total: \$219,822
Prin. Invest.: G L SANFORD
Tech. Officer: JSC/J D ATKINSON
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 963 **MOREHOUSE SCHOOL MED** **4106**
 GRAVITY-INDUCED CHANGES ON THE STEROIDOGENESIS ...
 09/25/1997 - 09/30/1999 FY99: \$83,300 Total: \$199,966
Prin. Invest.: R SRIDARAN
Tech. Officer: JSC/K KRISHNEN
 CASE Category: 56 - MEDICAL

NAG 9 971 **MOREHOUSE SCHOOL MED** **4107**
 EFFECT OF MICRO GRAV ON DISPO & BIOTRANS OF THERAPEUTIC
 AGENTS ...
 09/25/1997 - 12/31/1999 FY99: \$157,118 Total: \$388,518
Prin. Invest.: D POTTER
Tech. Officer: JSC/L PUTCHA
 CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 2 936 **MOREHOUSE SCHOOL MED** **4108**
 THE NEUROLAB EDUCATION PROGRAM IN THE DECADE OF THE BRAIN
 12/05/1995 - 06/30/1999 FY99: \$86,023 Total: \$1,384,528
Prin. Invest.: W W SULLIVAN
Tech. Officer: ARC/D R LISKOWSKY, ARC/K A SOUZA
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 9 53 **MOREHOUSE SCHOOL MED** **4109**
 DEVELOP MINORITY UNIV SPACE MEDICINE CENTER
 12/18/1997 - 06/30/2000 FY99: \$1,159,544 Total: \$2,509,414
Prin. Invest.: M THIERRY-PALMER
Tech. Officer: JSC/L ARMENDARIZ
 CASE Category: 56 - MEDICAL

NCCW 83 **MOREHOUSE SCHOOL MED** **4110**
 DEVELOPMENT OF A MINORITY SPACE MEDICINE AND LIFE SCIENCE
 RESEARCH CENTER
 08/11/1995 - 06/30/2000 FY99: \$0 Total: \$2,780,098
Prin. Invest.: M L THERRY-PALMER
Tech. Officer: HQ/B L WHITE
 CASE Category: 56 - MEDICAL

NGT 2 52239 **MOREHOUSE SCHOOL MED** **4111**
 MINORITY COMPONENT FOR THE SPACE BIOLOGY RESEARCH ASSOCI-
 ATES PROGRAM
 02/26/1998 - 12/31/1999 FY99: \$0 Total: \$149,394
Prin. Invest.: G L SANFORD
Tech. Officer: ARC/B LUNA, ARC/R A GRYNES
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1416 **MORRIS BROWN COLLEGE** **4112**
 NASA PH.D. PROGRAM
 01/20/1998 - 12/31/1998 FY99: \$0 Total: \$59,585
Prin. Invest.: M RALPH
Tech. Officer: MSFC/A C BEAM, MSFC/W J LOVE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2241 **SAVANNAH STATE UNIVERSITY** **4113**
 RENEWABLE ENERGY SCADA/TRAINING USING ACTS RENEWABLE
 ENERGY SCADA/TRAINING USING ACTS
 03/17/1999 - 01/21/2000 FY99: \$122,000 Total: \$122,000
Prin. Invest.: D KALU
Tech. Officer: GRC/R J ACOSTA
 CASE Category: 49 - ENGINEERING, OTHER

NAG10 250 **SAVANNAH STATE UNIVERSITY** **4114**
 INSTITUTION SERVICES FOR STUDENTS WITH DISABILITY
 09/23/1998 - 09/22/1999 FY99: \$0 Total: \$99,990
Prin. Invest.: T EATON
Tech. Officer: KSC/R M C KINNEY
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG10 266 **SAVANNAH STATE UNIVERSITY** **4115**
 HIGH SCHOOL/HIGH TECH PROGRAM A PARTNERSHIP OF SSU WITH THE
 GEORGIA COMMITTEE ON EMPLOYMENT OF PEOPLE
 09/01/1999 - 08/31/2001 FY99: \$99,971 Total: \$99,971
Prin. Invest.: D SAJWAN
Prin. Invest.: NONE
Tech. Officer: KSC/R J MCKINNEY
 CASE Category: 79 - SOCIAL SCIENCE, OTHER

NCC 3 362 **SAVANNAH STATE UNIVERSITY** **4116**
 ACTS FOR DISTANCE EDUCATION IN DEVELOPING COUNTRIES
 09/29/1994 - 09/28/1998 FY99: -\$802 Total: \$692,948
Prin. Invest.: A KALU, G G VENTRE
Tech. Officer: GRC/M S PLECITY, GRC/R J SCHERTLER
 CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1974 **SPELMAN COLLEGE** **4117**
 DEVELOPMENT OF SYNCHRONOUSLY SCANNED OPTICAL SENSORS AS NEW
 PROBE FOR HOSTILE ENVIRONMENTS
 10/11/1996 - 10/03/1999 FY99: \$49,784 Total: \$149,000
Prin. Invest.: P C CHEN
Tech. Officer: GRC/Y R HICKS
 CASE Category: 12 - CHEMISTRY

NAG 8 1635 **SPELMAN COLLEGE** **4118**
 FIFTH ANNUAL MODEL INSTITUTION FOR EXCELLENCE CONFERENCE
 09/29/1999 - 09/28/2000 FY99: \$438,331 Total: \$438,331
Prin. Invest.: E FALCONER
Tech. Officer: MSFC/W LOVE, MSFC/A C BEAM
 CASE Category: 49 - ENGINEERING, OTHER

NCC 5 237 SPELMAN COLLEGE 4119
 MODEL INSTITUTIONS FOR EXCELLENCE (MIE) PRICE OF THE TOTAL
 AWARD FOR THIS PERIOD IS \$1,554,661.
 09/11/1997 - 06/30/1998 FY99: -\$508,772 Total: \$1,045,889
Prin. Invest.: E FALCONER
Tech. Officer: GSFC/L RANDOLPH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 71 SPELMAN COLLEGE 4120
 POTENTIAL USE OF HALOGENATED TETRAPHENYLPORPHYRINS IN NON-
 LINEAR OPTICAL MATERIALS
 04/06/1995 - 06/30/1999 FY99: \$0 Total: \$198,355
Prin. Invest.: B H CARDELINO, P C CHEN
Tech. Officer: MSFC/B G PENN, MSFC/W J LOVE
CASE Category: 12 - CHEMISTRY

NCC 8 144 SPELMAN COLLEGE 4121
 INTEGRATED APPROACH TO THE PREDICTION OF HYPER- POLARIZABILITY
 OF ORGANIC CRYSTALS
 08/22/1997 - 12/31/1999 FY99: \$146,530 Total: \$291,363
Prin. Invest.: B CARDELINO
Tech. Officer: MSFC/C MOORE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 8 179 SPELMAN COLLEGE 4122
 MODEL INSTITUTIONS FOR EXCELLENCE (MIE)
 03/22/1999 - 12/31/1999 FY99: \$2,164,995 Total: \$2,164,995
Prin. Invest.: E Z FALCONER, A THOMPSON
Tech. Officer: MSFC/W J LOVE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 194 SPELMAN COLLEGE 4123
 CRYSTAL ENGINEERING OF NONLINEAR OPTICAL COMPOUNDS NEW
 APPROACH FOR PREDICTING HYPERPOLARIZABILITIES
 09/30/1999 - 09/30/2001 FY99: \$169,797 Total: \$169,797
Prin. Invest.: O SCRIVEN
Tech. Officer: MSFC/D O FRAIZER
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 90001 SPELMAN COLLEGE 4124
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 12/31/1996 - 08/14/1998 FY99: \$0 Total: \$229,800
Prin. Invest.: E FALCONER
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 21 - MATHEMATICS

NGT 8 52846 SPELMAN COLLEGE 4125
 R/S WISE SCHOLARS DEGREE
 01/28/1998 - 12/31/1998 FY99: \$0 Total: \$1,499,694
Prin. Invest.: E FALCONER
Tech. Officer: MSFC/W LOVE
CASE Category: 79 - SOCIAL SCIENCE, OTHER

NGT 8 52873 SPELMAN COLLEGE 4126
 WOMEN IN SCIENCE AND ENGINEERING PROGRAM
 03/08/1999 - 12/31/1999 FY99: \$1,591,475 Total: \$1,591,475
Prin. Invest.: C GILLYARD
Tech. Officer: MSFC/W LOVE, MSFC/A BEAM
CASE Category: 79 - SOCIAL SCIENCE, OTHER

NAG 5 1610 UNIVERSITY OF GEORGIA 4127
 HIGH-RESOLUTION X-RAY OBSERVATIONS OF THE TRAPEZIU M CLUSTER
 10/15/1991 - 04/14/1998 FY99: \$0 Total: \$115,752
Prin. Invest.: J P CAILLAULT
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 3433 UNIVERSITY OF GEORGIA 4128
 THE RELATIONSHIP BETWEEN GAS AND DUST IN HI SHELLS
 10/01/1996 - 09/30/1998 FY99: \$0 Total: \$33,000
Prin. Invest.: L MAGNANI
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3618 UNIVERSITY OF GEORGIA 4129
 MODEL ATMOSPHERES OF NOVAE IN OUTBURST
 12/05/1996 - 09/30/1999 FY99: \$0 Total: \$61,600
Prin. Invest.: P H HAUSCHILD
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3619 UNIVERSITY OF GEORGIA 4130
 MULTIWAVELENGTH MODELING OF NOVA ATMOSPHERES
 12/06/1996 - 04/30/2000 FY99: \$83,295 Total: \$290,329
Prin. Invest.: P HAUSCHILD
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6322 UNIVERSITY OF GEORGIA 4131
 STABLE ISOTOPIC ANALYSIS OF SECONDARY MINERALS IN
 09/05/1997 - 07/31/1999 FY99: \$0 Total: \$45,000
Prin. Invest.: C ROMANEK
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6479 UNIVERSITY OF GEORGIA 4132
 ENHANCED REMOTE SENSING CAPABILITIES FOR INTEGRATED ASSES-
 SMENTS OF ENVIRONMENTAL CHANGE
 11/18/1997 - 09/30/1999 FY99: \$0 Total: \$202,995
Prin. Invest.: R A WELCH
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6769 UNIVERSITY OF GEORGIA 4133
 DETERMINING THE NATURE OF THETA-1 ORI C'S X-RAY EMISSION
 01/21/1998 - 01/31/2000 FY99: \$0 Total: \$16,600
Prin. Invest.: J CAILLAULT
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6902 UNIVERSITY OF GEORGIA 4134
 DETERMINING THE AGES OF BETA PIC STARS
 02/06/1998 - 01/31/2000 FY99: \$0 Total: \$39,900
Prin. Invest.: J CAILLAULT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8376 UNIVERSITY OF GEORGIA 4135
 THE ROLE OF TRANSLUCENT CLOUDS IN GALACTIC STAR FORMATION
 (LTS498)
 03/09/1999 - 03/14/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: L MAGNANI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8425 UNIVERSITY OF GEORGIA 4136
 NLTE MODEL ATMOSPHERES FOR VERY LOW MASS STARS (LT SA98)
 05/10/1999 - 05/14/2000 FY99: \$68,792 Total: \$68,792
Prin. Invest.: P H HAUSCHILDT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8469 UNIVERSITY OF GEORGIA 4137
 THE EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRA SSLAND
 REGIONS
 05/06/1999 - 06/30/2001 FY99: \$90,185 Total: \$90,185
Prin. Invest.: T L MOTE
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 9 1110 UNIVERSITY OF GEORGIA 4138
 CONTROLLED GROWTH OF BIOLOGIC AND ABIOTIC CARBONATES AND-
 FEOXIDES
 05/14/1999 - 05/13/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: C S ROMANEK
Tech. Officer: JSC/E K GIBSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 8 97081 UNIVERSITY OF GEORGIA 4139
 LAND USE/COVER AND LAND SURFACE TEMPERATURE CHANGE MAPPING
 & NORMALIZED DIFFERENCE VEGETATION INDEX
 11/04/1996 - 11/03/1999 FY99: \$0 Total: \$158,755
Prin. Invest.: D P LO
Tech. Officer: MSFC/T MILLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30017 UNIVERSITY OF GEORGIA 4140
 MEASUREMENT OF IN SITU GROWTH RATES OF TWO IMPORTA PRODUC-
 ERS USING FLOW CYTOMETRY AND RRNA-TARGETED
 10/23/1996 - 08/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: B BINDER
Tech. Officer: GSFC/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NAG 1 2039 VALDOSTA STATE UNIVERSITY 4141
 GIS LABORATORY FOR EDUCATION, RESEARCH, TRAINING, AND APPLICA-
 TION OF GEOGRAPHIC INFORMATION SYSTEM
 03/30/1998 - 12/31/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: L A MCGLINN
Tech. Officer: LARC/W B BALL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3468 VALDOSTA STATE UNIVERSITY 4142
 ROTATIONAL EVOLUTION OF COOL STARS FROM THE ZAMS T
 10/28/1996 - 10/31/1999 FY99: \$0 Total: \$79,000
Prin. Invest.: K L RUMSTAY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 8 1264 VALDOSTA STATE UNIVERSITY 4143
 "JOVE" RESEARCH
 01/17/1997 - 08/31/1999 FY99: \$0 Total: \$93,591
Prin. Invest.: M LEAKE, D BOGYO
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 5303 VALDOSTA STATE UNIVERSITY 4144
 THE USE OF WATER VAPOR BY SUBAERIAL ALGAE
 12/24/1998 - 12/31/1999 FY99: \$11,766 Total: \$11,766
Prin. Invest.: J A NIENOW
Tech. Officer: ARC/C P MCKAY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

HAWAII

NAG 1 1763 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4146
 AEROSOL SULFUR AND NITRIC ACID VAPOR CONCENTRATION IN THE
 REMOTE PACIFIC TROPOSPHERE
 09/29/1995 - 12/31/1997 FY99: -\$80 Total: \$157,873
Prin. Invest.: B J HUEBERT, B J HUEBERT
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1764 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4147
 AEROSOL PHYSICO-CHEMISTRY AND CYCLING IN THE TROPOS PHERE:
 MEASUREMENTS FOR PEM-TROPICS
 09/29/1995 - 10/31/1999 FY99: \$0 Total: \$270,416
Prin. Invest.: D D CLARKE
Prin. Invest.: D D CLARKE
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1850 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4148
 STRESS RECOVERY AND ERROR ESTIMATION FOR 3-D SHELL STRUC-
 TURES
 08/01/1996 - 04/30/2000 FY99: \$44,965 Total: \$152,211
Prin. Invest.: H R RIGGS
Tech. Officer: LARC/J M HOUSNER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1293 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4149
 1999 BIOASTRONOMY MEETING
 02/09/1999 - 08/31/1999 FY99: \$17,750 Total: \$17,750
Prin. Invest.: K MEECH
Tech. Officer: ARC/L T CAROFF
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1374 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4150
 THE EVOLUTIONARY ORIGIN & DEPLOYMENT OF HOX & PARA HOX GENES
 IN METAZOA
 08/12/1999 - 12/31/1999 FY99: \$54,435 Total: \$54,435
Prin. Invest.: M Q MARTINDALE
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1912 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4151
 GAS-PHASE COMBUSTION SYNTHESIS OF METAL AND CERAMIC NANOPARTICLES
 07/09/1996 - 06/24/2000 FY99: \$13,313 Total: \$58,761
Prin. Invest.: B H CHAO
Tech. Officer: GRC/S GOKOGLU
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 931 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4152
 LOW COMPLEXITY, HIGH-PERFORMANCE, BANDWIDTH EFFICIENT CODING AND CODED MODULATION TECHNIQUES. . . .
 07/01/1987 - 07/31/1999 FY99: \$0 Total: \$677,471
Prin. Invest.: S LIN
Tech. Officer: GSFC/J C MORAKIS
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 1880 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4153
 PSPC OBS. OF 12 EMSS UNIDENTIFIED SOURCES: VERY DISTANT CLUSTERS OF GALAXIES OR UNUSUAL X-RAY EMIT
 02/10/1992 - 02/14/1999 FY99: \$0 Total: \$75,562
Prin. Invest.: J P HENRY
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2022 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4154
 THE ONSET OF CORONAL ACTIVITY
 07/15/1992 - 01/14/1998 FY99: -\$454 Total: \$103,037
Prin. Invest.: T SIMON
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2275 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4155
 EUVE OBSERVATIONS OF THE DME FLARE STAR AD LEO
 05/26/1993 - 11/30/1997 FY99: -\$13 Total: \$79,987
Prin. Invest.: T SIMON
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 2486 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4156
 PARALLEL IMAGE COMPRESSION BY NEURAL NETWORKS
 02/04/1994 - 02/14/1998 FY99: -\$1,946 Total: \$88,028
Prin. Invest.: D Y YUN
Tech. Officer: GSFC/J R FISCHER
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2523 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4157
 X-RAY TEMPERATURE FOR A COMPLETE SAMPLE OF DISTANT CLUSTERS
 02/24/1994 - 12/14/1999 FY99: \$0 Total: \$92,232
Prin. Invest.: J P HENRY
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2663 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4158
 PARTICIPATION IN THE CONSOLIDATED INFRARED SPECTROMETER (CIRS) AS CO-INVESTIGATOR
 07/21/1994 - 07/31/2000 FY99: \$0 Total: \$30,669
Prin. Invest.: T OWEN
Tech. Officer: GSFC/V KUNDE
CASE Category: 11 - ASTRONOMY

NAG 5 2695 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4159
 NASA DIGITAL IMAGE DATA DISTRIBUTION FOR EDUCATION PUBLIC ACCESS AND TOURISM IN HAWAII: A MODEL SYS.
 08/17/1994 - 08/31/1999 FY99: \$0 Total: \$851,210
Prin. Invest.: P J MOUGINIS-MARK
Tech. Officer: GSFC/F HASLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2836 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4160
 DYNAMICS OF GAS IN GROUPS OF GALAXIES
 12/12/1994 - 12/14/1997 FY99: -\$57 Total: \$25,943
Prin. Invest.: J E BARNES
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3000 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4161
 ANALYSIS OF DIGITAL TOPOGRAPHY OF VOLCANOES
 07/18/1995 - 07/31/1999 FY99: \$0 Total: \$341,226
Prin. Invest.: P J MOUGINIS-MARK
Tech. Officer: GSFC/H F FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3370 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4162
 TWO EXTREMELY RED GALAXIES
 09/06/1996 - 08/14/2000 FY99: \$0 Total: \$578,500
Prin. Invest.: R D JOSEPH
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3388 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4163
 COORDINATED OBSERVATIONS OF AD LEO: TESTING THE FLARE MODEL
 09/05/1996 - 03/14/1999 FY99: \$0 Total: \$26,797
Prin. Invest.: T SIMON, NONE
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3451 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4164
 ANALYSIS OF VOLCANIC ERUPTIONS AND FIRES USING LANDSAT 7
 10/07/1996 - 10/31/1999 FY99: \$50,000 Total: \$177,815
Prin. Invest.: D FLYNN
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3625 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4165
 SPECTRAL STUDIES OF POSSIBLE ASTEROIDAL MATERIALS
 02/12/1997 - 10/31/1999 FY99: \$0 Total: \$119,100
Prin. Invest.: J F BELL
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3635 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4166
 REMOTE SENSING AND GEOLOGIC STUDIES OF PLANETARY C
 02/12/1997 - 10/31/1999 FY99: \$70,400 Total: \$210,800
Prin. Invest.: B R HAWKE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3731 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4167
 ADAPTIVE OPTICS IMAGING OF SOLAR SYSTEM OBJECTS
 03/03/1997 - 12/31/1999 FY99: \$0 Total: \$132,000
Prin. Invest.: D J RODDIER
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 3766 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4168
 MINERALOGICAL MAPPING OF THE MOON
 02/20/1997 - 09/30/1999 FY99: \$140,000 Total: \$230,000
Prin. Invest.: P G LUCEY
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3782 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4169
 SHARING DISCOVERIES IN PLANETARY GEOSCIENCE ON THE -ROM
 02/25/1997 - 11/30/1999 FY99: \$65,000 Total: \$192,340
Prin. Invest.: G TAYLOR
Tech. Officer: GSFC/J BOYCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3875 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4170
 REGIONAL PLANETARY IMAGE CENTER
 02/10/1997 - 11/14/2000 FY99: \$50,000 Total: \$150,000
Prin. Invest.: E R HAWKE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4024 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4171
 APPLICATIONS OF SARS TO URBAN CLIMATOLOGY: ESTIMATING MOISTURE
 AVAILABILITY FROM RADARSAT IMAGES OF THE
 03/17/1997 - 01/31/2001 FY99: \$83,120 Total: \$130,573
Prin. Invest.: B M DOUSSET
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4127 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4172
 GEOMORPHOLOGY OF VOLCANOES ON MARS AND IO
 03/24/1997 - 10/31/1998 FY99: -\$1,556 Total: \$138,444
Prin. Invest.: S J ROWLAND
Tech. Officer: GSFC/J G GRANT
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4150 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4173
 VOLATILE EVOLUTION
 04/02/1997 - 10/31/1999 FY99: \$100,000 Total: \$340,000
Prin. Invest.: F P FANALE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4212 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4174
 ORIGIN OF METEORITE PARENT BODIES AND THE MOON
 03/19/1997 - 11/30/1999 FY99: \$362,200 Total: \$1,008,200
Prin. Invest.: D KEIL
Tech. Officer: GSFC/J BOYCE
CASE Category: 12 - CHEMISTRY

NAG 5 4223 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4175
 OBSERVATION AND ANALYSIS OF JOVIAN AND SATURNIAN S
 03/26/1997 - 03/14/2000 FY99: \$14,000 Total: \$32,000
Prin. Invest.: D J THOLEN
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4257 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4176
 MAPPING HAZARDOUS VOLCANOES WITH RADARSAT AND OTHE
 04/10/1997 - 02/28/2000 FY99: \$25,000 Total: \$60,000
Prin. Invest.: P MOUGINIS-MARK
Tech. Officer: GSFC/R H THOMAS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4395 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4177
 A GLOBAL ASSESSMENT OF ACTIVE VOLCANISM, VOLCANIC INPUTS TO
 THE ATMOSPHERE FROM THE EARTH OBSERVING
 05/06/1997 - 12/31/1999 FY99: \$350,000 Total: \$1,051,000
Prin. Invest.: P J MOUGINIS-MARK
Tech. Officer: GSFC/M BALTUCK
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4495 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4178
 DISTANT COMETS IN THE EARLY SOLAR SYSTEM
 05/06/1997 - 03/31/2000 FY99: \$115,262 Total: \$237,453
Prin. Invest.: D J MEECH
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 4524 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4179
 OBSERVATIONS OF PLANET-CROSSING ASTEROIDS
 05/28/1997 - 02/28/2000 FY99: \$63,000 Total: \$164,394
Prin. Invest.: D J THOLEN
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 4669 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4180
 THE SOLAR SYSTEM BEYOND NEPTUNE
 06/17/1997 - 12/31/1999 FY99: \$67,000 Total: \$166,495
Prin. Invest.: D C JEWITT
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4941 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4181
 OBSERVATIONAL INVESTIGATION OF THE SOLAR INTERIOR
 06/23/1997 - 05/31/2000 FY99: \$326,953 Total: \$681,120
Prin. Invest.: B J LABONTE
Tech. Officer: GSFC/W WIGNER
CASE Category: 13 - PHYSICS

NAG 5 6220 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4182
 OPEN ACCESS TO VECTOR MAGNETOGRAMS FROM MEES SOLAR
 08/18/1997 - 07/31/1998 FY99: -\$794 Total: \$10,006
Prin. Invest.: B J LABONTE
Tech. Officer: GSFC/J WILLETT
CASE Category: 11 - ASTRONOMY

NAG 5 6336 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4183
 A COMPARATIVE STUDY OF X-RAY & LENSING MASS DETERMINATIONS
 FOR THE MOST X-RAY LUMINOUS CLUSTERS IN
 10/02/1997 - 09/14/1999 FY99: \$0 Total: \$17,800
Prin. Invest.: H EBELING
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 6340 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4184
 AIRCRAFT RADIATION & AEROSOL MSMTS. NEAR HAWAII: SATELLITE VAL-
 IDATION AT THE MOBY BUOY & THE HOT SI
 10/02/1997 - 09/30/2000 FY99: \$17,418 Total: \$445,667
Prin. Invest.: J H PORTER
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6430 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4185
 ATMOSPHERIC DELAY CORRECTIONS FOR RADAR INTERFEROM ETRY:
 DEVELOPMENT & TESTING OF A GPS-BASED APPROA
 10/09/1997 - 04/30/2000 FY99: \$0 Total: \$120,000
Prin. Invest.: M BEVIS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6433 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4186
 A SYSTEM FOR ACQUISITION DISEMINATION OF EARTH SCI ENCE DATA VIA
 THEINTERNET
 10/17/1997 - 04/14/2000 FY99: \$284,820 Total: \$830,023
Prin. Invest.: T NEILSEN
Tech. Officer: GSFC/J DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6442 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4187
 UNDERSTANDING SEASONAL-TO-INTERANNUAL FLUCTUATIONS OF THE
 NORTH PACIFIC SUBTROPICAL GYRE THROUGH MO
 11/13/1997 - 06/30/2000 FY99: \$0 Total: \$127,220
Prin. Invest.: B QIU
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6501 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4188
 OPTICAL STUDIES OF ACTIVE COMETS
 11/18/1997 - 02/28/1999 FY99: -\$3,083 Total: \$46,917
Prin. Invest.: D JEWITT
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 6561 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4189
 SPECTROSCOPIC OBSERVATIONS OF THE PLANETS
 12/09/1997 - 03/31/2000 FY99: \$53,000 Total: \$106,000
Prin. Invest.: D OWEN
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 6673 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4190
 CENTER FOR THE STUDY OF WATER VAPOR FIELDS AND THE IR RADIA-
 TIVE EFFECTS OVER HAWAII-SATELLITE, AND
 12/16/1997 - 10/31/1999 FY99: \$0 Total: \$310,000
Prin. Invest.: S SHARMA
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTALSCI, OTHER

NAG 5 6695 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4191
 LOW TEMPERATURE CORONAE OF A-TYPE STARS
 12/04/1997 - 11/30/1998 FY99: -\$84 Total: \$19,916
Prin. Invest.: T P SIMON
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 6753 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4192
 A MG II SPECTRAL ATLAS AND FLUX CATALOG FOR LATE- TYPE STARS IN
 THEHYADES CLUSTER
 01/12/1998 - 01/14/2000 FY99: \$0 Total: \$45,066
Prin. Invest.: T SIMON
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6759 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4193
 FACILITIES SUPPORT FOR PLANETARY GEOSCIENCES
 12/24/1997 - 12/14/1999 FY99: \$0 Total: \$90,000
Prin. Invest.: P LUCEY
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6829 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4194
 OUTER SOLAR SYSTEM NOMENCLATURE
 01/15/1998 - 01/14/2000 FY99: \$5,000 Total: \$10,000
Prin. Invest.: T OWEN
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6950 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4195
 APPLICATIONS OF SYNTHETIC APERTURE RADARS TO URBAN CLIMATOL-
 OGY
 02/18/1998 - 10/14/1998 FY99: -\$46,672 Total: \$13,323
Prin. Invest.: B DOUSSET
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7038 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4196
 WEAK LENSING FROM SPACE_- ATP
 02/24/1998 - 03/31/2000 FY99: \$82,051 Total: \$165,315
Prin. Invest.: N KAISER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7056 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4197
 SUBMILLIMETER STUDIES OF COMETS
 02/27/1998 - 02/29/2000 FY99: \$49,000 Total: \$84,000
Prin. Invest.: D JEWITT
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 7087 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4198
 A MULTI-SENSOR STUDY OF CONVERGENT FRONTS IN THE N ORTH
 PACIFIC
 02/23/1998 - 06/30/1999 FY99: \$0 Total: \$46,979
Prin. Invest.: P J FLAMENT
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7139 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4199
 REMOTE RAMAN ANALYSIS FOR PLANETARY LANDERS
 03/04/1998 - 03/31/2001 FY99: \$61,433 Total: \$147,439
Prin. Invest.: S K SHARMA
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 7156 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4200
 TRAVEL SUPPORT FOR GCTE-LUCC OPEN SCIENCE CONFERENCE
 04/15/1998 - 07/31/1999 FY99: \$0 Total: \$33,880
Prin. Invest.: D C JEWITT
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 7171 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4201
 CONTROLS ON THE VARIABILITY OF PHYTOPLANKTON BIOMASS AND
 PRODUCTIVITY IN THE NORTH PACIFIC CENTRAL
 04/03/1998 - 03/31/2000 FY99: \$113,462 Total: \$229,064
Prin. Invest.: R R BIDIGARE
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 7383 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4202
 ARCHITECTURE AND IMPLEMENTATION CONSIDERATION OF A HIGH-
 SPEED VIBRATORY DECODER FOR REED-MULLER SUBC
 05/12/1998 - 09/14/2000 FY99: \$50,000 Total: \$149,000
Prin. Invest.: S LIN, NONE
Tech. Officer: GSFC/W H MILLER
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 7485 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4203
 TO ESTABLISH SUPPORT FOR AN INTERNATIONAL PACIFIC RESEARCH
 CENTER (IPRC) AT THE UNIV. SCHOOL OF OCEA
 06/03/1998 - 04/30/2000 FY99: \$0 Total: \$1,000,000
Prin. Invest.: L MAGAARD
Tech. Officer: GSFC/R G KIRK
CASE Category: 33 - OCEANOGRAPHY

NAG 5 7513 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4204
 HYPERSPECTRAL REMOTE SENSING OF CORAL REEFS IN A TROPICAL
 ESTUARY
 07/28/1998 - 09/30/2000 FY99: \$32,310 Total: \$129,169
Prin. Invest.: M J ATKINSON
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7578 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4205
 FUNDING FOR POST-ERUPTION HAZARDS AT MT. PINATUBO, PHIL-
 IPPINES (SENH98-0118)
 08/04/1998 - 01/31/2000 FY99: \$175,000 Total: \$272,500
Prin. Invest.: P J MOUGINIS-MARK
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7730 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4206
 INTERACTIVE TEACHING USING LANDSAT 5 AND LANDSAT 7 DATA
 09/29/1998 - 09/30/1999 FY99: \$0 Total: \$29,900
Prin. Invest.: L P FLYNN
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7855 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4207
 THERMAL INFRARED MEASUREMENTS OF THE MOON AND MERCURY
 12/07/1998 - 11/30/1999 FY99: \$50,535 Total: \$50,535
Prin. Invest.: D G LUCEY, NONE
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 7868 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4208
 CHEMISTRY AND MINERALOGY OF SURFACE UNITS ON EUROPA AND IO
 01/13/1999 - 12/31/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: D P FANALE
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7963 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4209
 THE FIFTH PLANETARY VOLCANOLOGY FIELD WORKSHOP
 12/15/1998 - 10/31/2000 FY99: \$46,000 Total: \$46,000
Prin. Invest.: S K ROWLAND
Tech. Officer: GSFC/J GRANT
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 8002 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4210
 SOLAR LIMB SHAPE, RADIUS AND OSCILLATION STUDIES USING SOHO/
 MDI
 01/12/1999 - 01/14/2000 FY99: \$116,852 Total: \$116,852
Prin. Invest.: J R KUHN
Tech. Officer: GSFC/J GURMAN
CASE Category: 11 - ASTRONOMY

NAG 5 8118 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4211
 A PRELIMINARY AEROSOL CLIMATOLOGY FOR THE PACIFIC BOUNDARY
 LAYER & FREE TROPOSPHERE
 01/29/1999 - 01/31/2000 FY99: \$111,000 Total: \$111,000
Prin. Invest.: A D CLARKE
Tech. Officer: GSFC/M MISHCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8168 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4212
 QUANTITATIVE INTERPRETATION OF VOLCANIC FEATURES IN MOC
 IMAGES
 02/16/1999 - 03/31/1999 FY99: \$0 Total: \$0
Prin. Invest.: L KESZTHELYI
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8216 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4213
 FIP, FIT, OR MAD? ANALYSIS OF HIGH SIGNAL-TO-NOISE ASCA SPECTRA
 OF CORONAL STARS (ADP98)
 02/08/1999 - 02/14/2000 FY99: \$44,970 Total: \$44,970
Prin. Invest.: T SIMON
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8253 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4214
 FROM DETECTION TO COMPREHENSION: UNDERSTANDING THE PHYSI-
 CAL MECHANISMS DRIVING CLUSTER X-RAY EVOLUTION
 02/19/1999 - 12/31/1999 FY99: \$125,000 Total: \$125,000
Prin. Invest.: J HENRY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8275 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4215
 NON-ICE CONSTITUENTS OF THE ICY GALILEAN SATELLITE SURFACES
 03/25/1999 - 12/31/1999 FY99: \$82,000 Total: \$82,000
Prin. Invest.: T B MCCORD
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8298 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4216
 A SURVEY FOR MASSIVE PLANETS BY DIRECT IMAGING WITH ADVANCED
 ADAPTIVE OPTICS
 02/23/1999 - 02/29/2000 FY99: \$135,000 Total: \$135,000
Prin. Invest.: D J RODDIER
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8300 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4217
 RADIATIVE BALANCE & BEHAVIOR OF THE SEASONAL MARS POLAR CAPS
 03/05/1999 - 03/14/2000 FY99: \$60,000 Total: \$60,000
Prin. Invest.: T MCCORD
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8330 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4218
 SOLAR-C: SCATTER-FREE OBSERVATORY FOR LIMB ACTIVE REGIONS
 AND CORONAE
 04/30/1999 - 04/30/2000 FY99: \$115,315 Total: \$115,315
Prin. Invest.: J R KUHN
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 8393 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4219
 MULTIPHASE GAS DYNAMICS IN INTERACTING GALAXIES (A TP 98)
 03/05/1999 - 03/14/2000 FY99: \$21,385 Total: \$21,385
Prin. Invest.: J E BARNES
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8414 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4220
 ERROR CONTROL CODING TECHNIQUES FOR SPACE AND SATELLITE COM-
 MUNICATIONS
 03/26/1999 - 02/29/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: S LIN
Tech. Officer: GSFC/W H MILLER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 8421 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4221
 SCIENTIFIC RESEARCH FOR DESIGN REFERENCE MISSION FOR NEXT
 GENERATION SPACE TELESCOPE
 04/02/1999 - 04/14/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: D N HALL
Tech. Officer: GSFC/E SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 8593 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4222
 1999 BIOASTRONOMY MEETING
 06/04/1999 - 05/31/2000 FY99: \$40,000 Total: \$40,000
Prin. Invest.: T C OWEN
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 8713 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4223
 MINERALOGY AND ISOTOPE CHEMISTRY OF CA-AL-RICH INCLUSIONS,
 CHONDRULES & MATRIX IN THE CV CHONDRITE
 08/04/1999 - 07/31/2000 FY99: \$24,000 Total: \$24,000
Prin. Invest.: K KEIL
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8745 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4224
 LOCAL TSUNAMIS IN HAWAII: HAZARD ASSESSMENT & EMERGENCY
 RESPONSE
 08/24/1999 - 02/28/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: G J FRYER
Tech. Officer: GSFC/E PAYLOR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8748 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4225
 A REAL-TIME SIMULATION PACKAGE FOR STORM SURGE AND WAVE
 RUNUP PACIFIC
 08/25/1999 - 08/30/2001 FY99: \$400,000 Total: \$400,000
Prin. Invest.: K F CHEUNG
Tech. Officer: GSFC/E PAYLOR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8751 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4226
 DEVELOPMENT OF A UV/VISIBLE-OPTIMIZED CCD FOR WFC3 ON HST
 09/08/1999 - 09/14/2000 FY99: \$93,500 Total: \$93,500
Prin. Invest.: G LUPPINO
Tech. Officer: GSFC/E CHENG
CASE Category: 13 - PHYSICS

NAG 5 8757 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4227
 IMAGING, GEOCODING AND ENVIRONMENTAL MONITORING IN HAWAII
 AND THE WEST PACIFIC
 08/24/1999 - 02/28/2001 FY99: \$400,000 Total: \$400,000
Prin. Invest.: M BEVIS
Tech. Officer: GSFC/E PAYLOR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 994 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4228
 JOVE
 01/25/1994 - 05/31/1999 FY99: \$0 Total: \$73,424
Prin. Invest.: W D HEACOX
Tech. Officer: MSFC/F SIX
CASE Category: 11 - ASTRONOMY

NAGW 237 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4229
 GEOLOGIC STUDIES OF PLANETARY VOLCANIC AND IMPACT PROCESS.
 08/01/1986 - 09/30/1997 FY99: -\$2 Total: \$915,913
Prin. Invest.: B R HAWKE
Tech. Officer: HQ/J UNDERWOOD, HQ/J M BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 437 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4230
 ANAL OF MARTIAN SURF MATERIALS USING RADAR THEMATA & COLOR
 DATA & GEOL EVOL OF THE HEAVILY CRATERED
 05/05/1986 - 10/31/1997 FY99: -\$1,203 Total: \$1,262,572
Prin. Invest.: P M MARK
Tech. Officer: HQ/J R UNDERWOOD, HQ/J M BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 802 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4231
 INFRARED SPECTRAL STUDIES OF ASTEROIDS
 05/05/1986 - 12/31/1997 FY99: -\$2 Total: \$449,403
Prin. Invest.: W J BELL
Tech. Officer: HQ/H C BRINTON, HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 1542 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4232
 RESEARCH IN CORONAL AND CHROMOSPHERIC PHYSICS IN SUPPORT
 12/09/1988 - 10/31/1997 FY99: \$0 Total: \$2,351,093
Prin. Invest.: R C CANFIELD
Tech. Officer: HQ/J D BOHLIN, HQ/S KANE
CASE Category: 13 - PHYSICS

NAGW 2153 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4233
 OUTER SOLAR SYSTEM NOMENCLATURE
 08/14/1990 - 09/30/1997 FY99: -\$1,272 Total: \$29,277
Prin. Invest.: T OWEN
Tech. Officer: HQ/T A MAXWELL
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 2468 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4234
 A GLOBAL ASSESSMENT OF ACTIVE VOLCANISM VOLCANIC HAZARDS,
 AND VOLCANIC INPUTS TO THE ATMOS. FROM EO
 04/30/1991 - 06/30/1998 FY99: \$0 Total: \$1,713,000
Prin. Invest.: P MOUQUINIS-MARK
Tech. Officer: HQ/M BALTUCK, HQ/B J MALCOLM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 2631 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4235
 LABORATORY INVESTIGATIONS OF VOLATILE TRAPPING IN COMETS
 09/04/1991 - 09/30/1997 FY99: -\$7,231 Total: \$385,112
Prin. Invest.: T C OWEN
Tech. Officer: HQ/J D RUMMEL
CASE Category: 12 - CHEMISTRY

NAGW 2650 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4236
 NAGW-2650/UNIV HAWAII/SPECTROSCOPIC OBSERVATIONS OF THE PLAN-
 ETES
 08/19/1991 - 09/30/1997 FY99: -\$1,375 Total: \$279,897
Prin. Invest.: T OWEN
Tech. Officer: HQ/J RAHE
CASE Category: 11 - ASTRONOMY

NAGW 3044 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4237
 NAGW-3044/UNIV HAWAII/OBSERVATIONS OF SPACECRAFT TARGETS,
 UNUSUAL OBJECTS, & OTHER TARGETS
 04/24/1992 - 03/31/1998 FY99: \$0 Total: \$142,000
Prin. Invest.: D J THOLEN
Tech. Officer: HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAGW 3099 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4238
 NAGW-3099/UNIV HAWAII/INSTRUMENTATION FOR ACHIEVING HIGH
 ANGULAR RESOLUTION ON THE NASA INFRARED
 06/17/1992 - 03/31/1998 FY99: -\$1,359 Total: \$1,190,701
Prin. Invest.: B SMITH
Tech. Officer: HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAGW 3281 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4239
 NAGW-3281/UNIV HAWAII/ORIGIN OF METEORITE PARENT BODIES AND
 THE MOON
 12/04/1992 - 09/30/1997 FY99: -\$595 Total: \$1,253,745
Prin. Invest.: K KEIL
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3900 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4240
 SUBMILLIMETER IMAGING OF DUST AROUND MAIN SEQUENCE
 03/23/1994 - 03/31/1998 FY99: \$0 Total: \$105,000
Prin. Invest.: D JEWITT
Tech. Officer: HQ/J RAHE
CASE Category: 11 - ASTRONOMY

NAGW 3973 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4241
 SUBMILLIMETER CONTINUUM OBSERVATIONS OF COMETS
 05/03/1994 - 02/28/1998 FY99: -\$47 Total: \$118,353
Prin. Invest.: D JEWITT
Tech. Officer: HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 4601 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4242
 OPTICAL STUDIES OF ACTIVE COMETS
 08/11/1995 - 03/31/1998 FY99: -\$14 Total: \$99,986
Prin. Invest.: D JEWITT
Tech. Officer: HQ/E BARKER
CASE Category: 11 - ASTRONOMY

NAGW 4650 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4243
 HIGH ANGULAR RESOLUTION OBSERVATIONS OF PROTO PLANETARY
 DISKS WITH ADAPTIVE OPTICS
 08/02/1995 - 09/30/1997 FY99: -\$4,907 Total: \$105,093
Prin. Invest.: F RODDIER
Tech. Officer: HQ/P ROGERS
CASE Category: 11 - ASTRONOMY

NAGW 4697 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4244
 ATMOSPHERIC DELAY CORRECTIONS FOR RADAR INTERFEROMETRY:
 DEVELOPMENT AND TESTING OF A GPS-BASED
 08/16/1995 - 02/28/1998 FY99: -\$14 Total: \$279,986
Prin. Invest.: M BEVIS
Tech. Officer: HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4874 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4245
 THE COMPOSITION OF THE LUNAR CRUST
 11/30/1995 - 12/31/1997 FY99: -\$684 Total: \$99,266
Prin. Invest.: P G LUCEY
Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 4886 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4246
 REMOTE SENSING STUDIES OF THE LUNAR CRUST
 01/01/1996 - 12/31/1997 FY99: -\$1,795 Total: \$48,205
Prin. Invest.: B R HAWKE
Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 4889 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4247
 SOLAR SYSTEM BEYOND NEPTUNE
 12/07/1995 - 12/31/1997 FY99: -\$4,292 Total: \$50,203
Prin. Invest.: D JEWITT
Tech. Officer: HQ/P G ROGERS
CASE Category: 11 - ASTRONOMY

NAGW 4918 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4248
 KUIPER BELT OBJECTS ALONG THE PLUTO EXPRESS PATH
 02/06/1996 - 06/30/1998 FY99: -\$1,102 Total: \$18,898
Prin. Invest.: D C JEWITT
Tech. Officer: HQ/E BARKER, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 4935 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4249
 ADAPTIVE OPTICS IMAGING OF SOLAR SYSTEM OBJECTS
 02/13/1996 - 12/31/1998 FY99: -\$4,896 Total: \$61,104
Prin. Invest.: F J RODDIER
Tech. Officer: HQ/E BARKER, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 4955 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4250
 STUDIES OF THE PLUTO-CHARON SYSTEM
 03/20/1996 - 02/28/1998 FY99: \$0 Total: \$21,363
Prin. Invest.: D J THOLEN
Tech. Officer: HQ/E BAKER, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 4965 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4251
 MAPPING HAZARDOUS VOLCANOES WITH RADARSAT AND OTHER ORBITAL RADARS
 02/28/1996 - 09/30/1997 FY99: -\$8 Total: \$15,992
Prin. Invest.: P MOUGINIS-MARK
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 5250 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4252
 UNDERSTANDING SEASONAL-TO-INTERANNUAL FLUCTUATIONS OF THE NORTH PACIFIC SUBTROPICAL GYRE
 10/22/1996 - 12/30/1997 FY99: -\$4,957 Total: \$142,050
Prin. Invest.: B QUI
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 33 - OCEANOGRAPHY

NAS 2 98077 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4253
 DEVELOPMENT OF ADVANCED NEAR INFRARED FOCAL PLANE TECHNOLOGY
 08/04/1998 - 08/31/2001 FY99: \$350,000 Total: \$640,000
Prin. Invest.: D N HALL
Tech. Officer: ARC/K W HODAPP
CASE Category: 11 - ASTRONOMY

NAS 5 30951 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4254
 INTERPRETATION OF GALILEO PROBE MASS SPECTROMETER DATA
 01/15/1991 - 04/30/2000 FY99: \$0 Total: \$280,168
Prin. Invest.: T C OWENS
Tech. Officer: GSFC/J R RICHARDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 32354 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4255
 LASER RANGING OPERATIONS & MAINTENANCE
 03/03/1994 - 05/15/1999 FY99: \$392,855 Total: \$3,440,949
Prin. Invest.: D HALL
Tech. Officer: GSFC/J MCGARRY
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NAS 5 97136 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4256
 MEASUREMENTS OF AEROSOL, OCEAN & SKY PROPERTIES AT THE HOT SITE IN THE CENTRAL PACIFIC
 09/29/1997 - 09/28/1999 FY99: \$214,398 Total: \$396,097
Prin. Invest.: J PORTER
Tech. Officer: GSFC/C MCLAIN
CASE Category: 33 - OCEANOGRAPHY

NAS 5 99180 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4257
 LASER RANGING OPERATION, REPAIR & MAINTENANCE OF LURE OBSERVATORY FACILITY, MAUI, HI.
 08/19/1999 - 08/18/2004 FY99: \$270,000 Total: \$270,000
Prin. Invest.: D O'GARA
Tech. Officer: GSFC/J MCGARRY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NASW 5062 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4258
 OPERATION AND MAINTENANCE OF THE INFRARED TELESCOPE FACILITY
 01/31/1996 - 12/31/1999 FY99: \$3,490,000 Total: \$11,976,140
Prin. Invest.: D N HALL, R JOSEPH
Tech. Officer: HQ/E BARKER
CASE Category: 11 - ASTRONOMY

NCC 1 315 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4259
 SIZE RESOLVED AEROSOL NUCLEI AND PHYSICO-CHEMISTRY FOR PENTROPICS B ABOARD P-3B, REF NRA-97-MTPE-13
 08/17/1998 - 08/31/2001 FY99: \$55,000 Total: \$232,000
Prin. Invest.: A D CLARKE, V KAPUSTIN
Tech. Officer: LARC/J M HOELL, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5194 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4260
 PHOTON-DOMINATED CIRCUMSTELLAR GAS
 11/13/1996 - 12/31/1998 FY99: \$0 Total: \$12,000
Prin. Invest.: J L HORA
Tech. Officer: ARC/D HOLLENBACH
CASE Category: 11 - ASTRONOMY

NCC 3 696 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4261
 FLAME DESIGN - A NOVEL APPROACH TO CLEAN, EFFICIENT DIFFUSION FLAMES
 03/25/1999 - 01/13/2003 FY99: \$11,251 Total: \$11,251
Prin. Invest.: B CHAO
Tech. Officer: GRC/D L URBAN
CASE Category: 49 - ENGINEERING, OTHER

NCC 5 373 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4262
 PARTICIPATION IN THE COMPOSITE INFRARED SPECTROMETER (CIRS) PROJECT AS CO-INVESTIGATOR
 01/12/1999 - 01/14/2000 FY99: \$8,000 Total: \$8,000
Prin. Invest.: T C OWEN
Tech. Officer: GSFC/G L BJORAKER
CASE Category: 11 - ASTRONOMY

NGT 30312 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4263
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/04/1995 - 08/31/1998 FY99: -\$2,637 Total: \$41,363
Prin. Invest.: F JIN
Tech. Officer: HQ/M BALTUCK, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

NGT 40020 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4264
 NGT-40020/UNIV OF HAWAII/NAT'L SPACE GRANT COLLEGE AND FELLOW-
 SHIP PROGRAM
 03/07/1990 - 01/31/2000 FY99: \$0 Total: \$2,154,000
Prin. Invest.: P MOUGINIS-MARK
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51286 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4265
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1994 - 12/31/1997 FY99: -\$4,216 Total: \$61,784
Prin. Invest.: B J LABONTE
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 - ASTRONOMY

NGT 51652 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4266
 GRAD STUD RES PROG
 08/20/1996 - 09/30/1997 FY99: -\$1,927 Total: \$20,073
Prin. Invest.: K KEIL
Tech. Officer: HQ/D HOLLAND
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 530047 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4267
 THIRD YEAR FUNDING: "EL NINO-SOUTHERN OSCILLATION BY GLOBAL
 CLIMATE CHANGE" GSRP RECIPIENT: JEFF DRBO
 09/04/1997 - 08/31/1998 FY99: -\$2,958 Total: \$19,042
Prin. Invest.: F JIN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 530179 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4268
 PHYSICAL MODELING OF MULTI-SPECTRAL DATA TO CHARACTERIZE
 DEPTH & BOTTOM-TYPE IN NEARSHORE MARINE CA
 08/12/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: C FLETCHER
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 530207 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4269
 SOURCES AND ISOTOPIC COMPOSITIONS OF NITROUS OXIDE FROM THE
 SUBTROPIC NORTH PACIFIC & EASTERN TROPIC
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: B POPP, NONE
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 540021 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4270
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 02/13/1997 - 01/31/2000 FY99: \$412,000 Total: \$1,154,500
Prin. Invest.: P MOUGINIS-MARK
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 550017 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4271
 THE LINK BETWEEN INTERACTIONS, INFRARED EMISSION OF GALAXIES:
 A DETAILED STUDY OF A COMPLETE SAMPLE
 07/14/1997 - 06/30/2000 FY99: \$0 Total: \$44,000
Prin. Invest.: J E BARMES
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTIINTERDISCIPL, OTHER

NGT 550089 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4272
 GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: J
 08/27/1997 - 06/30/1998 FY99: -\$52 Total: \$21,948
Prin. Invest.: D SANDERS
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 550175 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4273
 A COMPLETE SAMPLE OF X-RAY SELECTED GALAXY CLUSTERS FROM
 THE ROSAT NORTHECLIPTIC POLE SURVEY
 05/22/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J HENRY/MULLIS
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NAG 5 2938 UNIVERSITY OF HAWAII SYSTEM 4274
 ARCHITECTURE AND IMPLEMENTATION CONSIDERATIONS OF A HIGH-
 SPEED VITERBI DECODER FOR A REED-MULLER SUB
 05/10/1995 - 04/30/1999 FY99: -\$11,177 Total: \$254,223
Prin. Invest.: S LIN, G UEHARA
Tech. Officer: GSFC/W H MILLER, GSFC/J C MORAKIS
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 4133 UNIVERSITY OF HAWAII SYSTEM 4275
 INFRARED SPECTRAL STUDIES OF ASTEROID
 03/13/1997 - 12/31/1998 FY99: -\$306 Total: \$24,194
Prin. Invest.: D F BELL
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 4143 UNIVERSITY OF HAWAII SYSTEM 4276
 A MULTI-SENSOR STUDY OF CONVERGENT FRONTS IN THE N
 04/14/1997 - 09/30/1998 FY99: -\$1,274 Total: \$40,915
Prin. Invest.: P FLAMENT
Tech. Officer: GSFC/R H THOMAS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4227 UNIVERSITY OF HAWAII SYSTEM 4277
 HIGH ANGULAR RESOLUTION OBSERVATIONS OF PROTOPLANE ADAPTIVE
 OPTICS
 03/24/1997 - 04/30/1999 FY99: \$0 Total: \$55,000
Prin. Invest.: D J RODDIER
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4249 UNIVERSITY OF HAWAII SYSTEM 4278
 KUIPER BELT OBJECTS ALONG THE PLUTO-EXPRESS PATH
 03/24/1997 - 01/31/1999 FY99: -\$1,300 Total: \$18,700
Prin. Invest.: D C JEWITT
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 4344 UNIVERSITY OF HAWAII SYSTEM 4279
 SPECTROPHOTOMETRIC STUDIES OF MARS USING THE HIGH- CAMERA
 ON THE SOVIET MARS 96 MISSION
 04/17/1997 - 06/30/1998 FY99: -\$3,245 Total: \$16,755
Prin. Invest.: D B MCCORD
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4355 UNIVERSITY OF HAWAII SYSTEM 4280
 OPERATION OF THE UNIVERSITY OF HAWAII 2.2-M TELESC
 04/17/1997 - 02/28/1999 FY99: -\$370 Total: \$109,630
Prin. Invest.: P HALL
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAG 5 4443 UNIVERSITY OF HAWAII SYSTEM 4281
 SUPPORT OF THE 60TH METEOROLOGICAL SOCIETY MEETING MAUI
 HAWAII
 04/23/1997 - 12/31/1997 FY99: -\$41 Total: \$20,959
Prin. Invest.: D KEIL
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4631 UNIVERSITY OF HAWAII SYSTEM 4282
 DK UMA, A STAR ON THE ASCENT
 05/21/1997 - 05/31/1999 FY99: \$0 Total: \$17,480
Prin. Invest.: T SIMON
Tech. Officer: GSFC/R JOLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 4828 UNIVERSITY OF HAWAII SYSTEM 4283
 X-RAY TEMPERATURES FOR A COMPLETE SAMPLE OF DISTAN
 06/20/1997 - 06/30/2000 FY99: \$0 Total: \$18,900
Prin. Invest.: J HENRY
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6168 UNIVERSITY OF HAWAII SYSTEM 4284
 IS THERE ONLY ONE STELLAR CORONAL ACTIVITY-AGE REL
 08/01/1997 - 07/31/1999 FY99: \$0 Total: \$4,600
Prin. Invest.: T SIMON
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAGW 4816 UNIVERSITY OF HAWAII SYSTEM 4285
 ANALYSIS OF MAUNA KEA IMAGING OF COMET P/SHOEMAKER -LEVY 9
 10/03/1995 - 07/31/1998 FY99: -\$1,514 Total: \$23,486
Prin. Invest.: D JEWITT
Tech. Officer: HQ/E BARKER
CASE Category: 11 - ASTRONOMY

NGT 51387 UNIVERSITY OF HAWAII SYSTEM 4286
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/15/1995 - 06/30/1998 FY99: -\$41 Total: \$43,959
Prin. Invest.: D B SANDERS
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 - ASTRONOMY

NAG 5 6799 UNIVERSITY OF HAWAII WINDWARD COMMUNITY COLLEGE 4287
 ESTABLISHING A RS/GIS EDUCATIONAL TRAINING AND ENVIRONMENTAL
 MONITORING CENTER IN HAWAII
 02/27/1998 - 02/29/2000 FY99: \$0 Total: \$93,014
Prin. Invest.: J E CIOTTI
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

IDAHO

NAG 5 6090 BOISE STATE UNIVERSITY 4288
 POSSIBLE IMPACT ORIGIN OF SOME TERRESTRIAL DIAMICT
 08/13/1997 - 07/14/1999 FY99: \$0 Total: \$41,691
Prin. Invest.: V OBERBECK
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7537 BOISE STATE UNIVERSITY 4289
 INVESTIGATION OF PHYSICAL PROCESS DYNAMICS DURING COLD SEA-
 SON FLOODING.
 06/18/1998 - 06/30/2001 FY99: \$0 Total: \$109,909
Prin. Invest.: P DAWSON
Tech. Officer: GSFC/E ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 2138 IDAHO STATE UNIVERSITY 4290
 ELECTRO-OPTIC HOLOGRAPHY
 01/27/1999 - 11/30/1999 FY99: \$35,777 Total: \$35,777
Prin. Invest.: J D BLOTTER
Tech. Officer: LARC/G A FLEMING, LARC/R W WLEZIEN
CASE Category: 46 - MECHANICAL ENGR

NAG 2 961 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4291
 GALILEO DOPPLER WIND EXPERIMENT
 02/06/1995 - 09/30/1997 FY99: -\$5 Total: \$88,542
Prin. Invest.: D G ATKINSON
Tech. Officer: ARC/L E LASHER, ARC/R E YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 4 156 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4292
 EAGLES IN SPACE PROGRAM EAGLES IN SPACE PROGRAM
 08/02/1998 - 07/31/1999 FY99: \$0 Total: \$14,214
Prin. Invest.: I BOND
Tech. Officer: DFRC/M MCCARTY, DFRC/L DUKE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4747 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4293
 EARTH SYSTEM FIELD RESEARCH EXPERIENCE FOR UNDERGR
 06/18/1997 - 05/31/2000 FY99: \$77,072 Total: \$229,144
Prin. Invest.: M MILLER
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6516 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4294
 INLAND NORTHWEST REMOTE SENSING LABORATORY FOR BIO REGIONAL
 ANALYSIS
 10/24/1997 - 09/30/1998 FY99: -\$1,422 Total: \$217,260
Prin. Invest.: P GESSLER
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 862 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4295
 DEVELOPMENT OF SENSORY RECEPTORS IN SKELETAL MUSCLE
 06/21/1994 - 04/30/1999 FY99: \$0 Total: \$193,299
Prin. Invest.: M E DESANTIS
Tech. Officer: ARC/D A REIS-BUBENHEIM, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 914 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4296
 SPARK: STUDENT PROGRAM FOR AERONAUTICS RESOURCES FOR
 KNOWLEDGE
 07/26/1995 - 06/30/1999 FY99: \$7,547 Total: \$314,313
Prin. Invest.: D H ATKINSON
Tech. Officer: ARC/M J LEON, ARC/W C LIKENS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 395 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4297
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/13/1999 - 05/31/2000 FY99: \$225,000 Total: \$225,000
Prin. Invest.: R GILL
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40006 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4298
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM
 12/10/1996 - 02/28/1998 FY99: -\$501 Total: \$82,202
Prin. Invest.: R GILL
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40056 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4299
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM
 02/12/1997 - 02/28/2000 FY99: \$367,250 Total: \$969,250
Prin. Invest.: R GILL
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

ILLINOIS

NCC 5 272 DEPAUL UNIVERSITY 4300
 OSS EDUCATION AND OUTREACH BROKER/FACILITATOR PROGRAM
 02/24/1998 - 03/14/2000 FY99: \$205,000 Total: \$390,000
Prin. Invest.: C C NARASIMHAN
Tech. Officer: GSFC/J ROSENDAHL
CASE Category: 11 - ASTRONOMY

NAG 1 2180 ILLINOIS INSTITUTE OF TECHNOLOGY 4301
 FREE-STREAM TURBULENCE LEVEL MEASUREMENT BY LEADING-EDGE
 STABILITY METHODS
 04/06/1999 - 09/30/1999 FY99: \$12,174 Total: \$12,174
Prin. Invest.: T C CORKE
Tech. Officer: LARC/R W WIEZIEN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 167 ILLINOIS INSTITUTE OF TECHNOLOGY 4302
 CONTROLLED EXPERIMENTS ON INSTABILITIES AND TRANSITION TO TUR-
 BULENCE ON CONES AT MACH 3.5 & 8
 08/04/1992 - 12/31/1997 FY99: -\$1 Total: \$281,228
Prin. Invest.: T C CORKE
Tech. Officer: LARC/S P WILKINSON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 8 1262 ILLINOIS STATE UNIVERSITY 4303
 RESEARCH JOVE
 01/17/1997 - 08/31/2000 FY99: \$0 Total: \$51,000
Prin. Invest.: D HOLLAND
Tech. Officer: MSFC/J F DOWNDY, MSFC/J R PRUITT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1813 NORTHWESTERN UNIVERSITY 4304
 AN ULTRASONICS TECHNIQUE TO DETERMINE THE RESIDUAL STRENGTH
 OF ADHESIVE BONDS
 02/28/1996 - 08/31/1999 FY99: \$20,833 Total: \$150,000
Prin. Invest.: J D ACHENBACH, J S STECKENRIDER
Tech. Officer: LARC/W P WINFREE, LARC/W T YOST
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1604 NORTHWESTERN UNIVERSITY 4305
 STRUCTURE & DYNAMICS OF DIFFUSION FLAMES IN MICROGRAVITY
 05/23/1994 - 05/22/1999 FY99: \$0 Total: \$373,600
Prin. Invest.: M MATALON
Tech. Officer: GRC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1608 NORTHWESTERN UNIVERSITY 4306
 FILTRATION COMBUSTION FOR MICROGRAVITY APPLICATION ; (1) SMOL-
 DERING (2) COMBUSTION SYNTHESIS ADV MAT
 05/24/1994 - 11/30/1998 FY99: \$0 Total: \$527,000
Prin. Invest.: B J MATKOWSKY
Tech. Officer: GRC/S A GOKOGLU
CASE Category: 43 - CHEMICAL ENGR

NAG 3 1737 NORTHWESTERN UNIVERSITY 4307
 THEORY OF SOLIDIFICATION
 04/18/1995 - 05/31/2000 FY99: \$150,000 Total: \$754,000
Prin. Invest.: S H DAVIS
Tech. Officer: GRC/A CHART
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1823 NORTHWESTERN UNIVERSITY 4308
 COARSENING IN SOLID-LIQUID MIXTURES
 04/01/1996 - 05/31/2000 FY99: \$100,000 Total: \$767,881
Prin. Invest.: P W VOORHEES
Tech. Officer: GRC/T K GLASGOW
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1855 NORTHWESTERN UNIVERSITY 4309
 CONTROLL OF FLOWING LIQUID FILMS BY ELECTROSTATIC FIELDS IN
 SPACE
 04/26/1996 - 05/31/2000 FY99: \$120,000 Total: \$430,000
Prin. Invest.: S G BANKOFF, R A SCHLUTER, M J MIKSIS
Tech. Officer: GRC/R A WILKINSON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1863 NORTHWESTERN UNIVERSITY 4310
 COMBUSTION OF ROTATING SPHERICAL PREMIXED AND DIFFUSION
 FLAMES IN MICROGRAVITY
 07/02/1996 - 06/30/2000 FY99: \$80,982 Total: \$254,926
Prin. Invest.: S H SOHRAB
Tech. Officer: GRC/N D PILTCH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1892 NORTHWESTERN UNIVERSITY 4311
 THE MICROMECHANICS OF THE MOVING CONTACT LINE
 06/01/1996 – 05/31/2000 FY99: \$80,000 Total: \$287,000
Prin. Invest.: S LICHTER
Tech. Officer: GRC/M WEISLOGEL
CASE Category: 13 – PHYSICS

NAG 3 1932 NORTHWESTERN UNIVERSITY 4312
 NONLINEAR RELAXATION AND FLUCTUATIONS IN A NON-EQUILIBRIUM
 NEAR CRITICAL LIQ WITH A TEMP GRADIENT
 07/29/1996 – 07/31/2000 FY99: \$50,000 Total: \$190,999
Prin. Invest.: A Z PATASHINSKI, G A ZIMMERLI
Tech. Officer: GRC/B S SINGH
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 3 2113 NORTHWESTERN UNIVERSITY 4313
 COMPLEX DYNAMICS IN MARANGONI CONVECTION WITH ROTATION
 03/04/1998 – 01/06/2002 FY99: \$100,000 Total: \$175,000
Prin. Invest.: H RIECKE
Tech. Officer: GRC/F P CHIARAMONTE
CASE Category: 46 – MECHANICAL ENGR

NAG 3 2209 NORTHWESTERN UNIVERSITY 4314
 FILTRATION COMBUSTION FOR MICROGRAVITY APPLICATIONS: (1)
 SMOLDERING (2) COMBUSTION SYNTHESIS OF A
 11/17/1998 – 11/11/2002 FY99: \$138,000 Total: \$138,000
Prin. Invest.: B J MATKOWSKY
Tech. Officer: GRC/S A GOGOKLU
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 2231 NORTHWESTERN UNIVERSITY 4315
 OPTIMIZATION OF A1N AND A1GAN MATERIAL FOR ELECTRON EMISSIVE
 DEVICES
 02/25/1999 – 01/24/2000 FY99: \$15,000 Total: \$15,000
Prin. Invest.: D NEWMAN
Tech. Officer: GRC/L L KRAINSKY
CASE Category: 13 – PHYSICS

NAG 5 2432 NORTHWESTERN UNIVERSITY 4316
 SMALL SCALE SUBSTRUCTURE WITHIN THE COMA CLUSTER OF GALAXIES
 11/12/1993 – 11/30/2000 FY99: \$64,000 Total: \$408,600
Prin. Invest.: M ULMER
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 2822 NORTHWESTERN UNIVERSITY 4317
 OSSE OBSERVATIONS OF THE DIFFUSE GALACTIC LOW-ENERGY GAMMA-
 RAY CONTINUUM
 12/14/1994 – 12/14/1997 FY99: -\$3,484 Total: \$165,148
Prin. Invest.: W R PURCELL
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3490 NORTHWESTERN UNIVERSITY 4318
 IMPROVED CGRO MAPS OF 26AL
 11/13/1996 – 12/31/1998 FY99: \$0 Total: \$29,000
Prin. Invest.: M P ULMER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3588 NORTHWESTERN UNIVERSITY 4319
 OSSE SEARCH FOR BURST COUNTERPARTS
 12/11/1996 – 12/14/1998 FY99: -\$3,000 Total: \$60,114
Prin. Invest.: S M MATZ
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3816 NORTHWESTERN UNIVERSITY 4320
 OSSE OBSERVATIONS OF THE CARINA REGION OF THE GALAXY
 01/20/1997 – 01/14/1999 FY99: -\$1 Total: \$22,999
Prin. Invest.: D A GRABELSKY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 4240 NORTHWESTERN UNIVERSITY 4321
 OSSE SKY SURVEY OBSERVATIONS FOR CYCLE 6
 04/01/1997 – 04/14/1999 FY99: \$0 Total: \$7,575
Prin. Invest.: W R PURCELL
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 4260 NORTHWESTERN UNIVERSITY 4322
 GRAVITATIONAL RADIATION SOURCES FOR THE LAGOS
 04/07/1997 – 12/31/1998 FY99: \$0 Total: \$35,000
Prin. Invest.: D S FINN
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 4354 NORTHWESTERN UNIVERSITY 4323
 MARINER 10 COLOR AND ALBEDO OF MERCURY AND THE MOON
 04/24/1997 – 03/11/2000 FY99: \$41,500 Total: \$138,679
Prin. Invest.: D S ROBINSON
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 5094 NORTHWESTERN UNIVERSITY 4324
 THE DEVELOPMENT OF A FOCUSING SYSTEM FOR 40–100 KEV X-RAYS
 11/22/1996 – 03/11/2000 FY99: \$125,000 Total: \$350,000
Prin. Invest.: M P ULMER
Tech. Officer: GSFC/L W GURKIN
CASE Category: 13 – PHYSICS

NAG 5 6413 NORTHWESTERN UNIVERSITY 4325
 THE HOT INTERSTELLAR MEDIUM (LTSA – NEW)
 10/24/1997 – 10/31/1999 FY99: \$95,000 Total: \$186,000
Prin. Invest.: Q WANG
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6730 NORTHWESTERN UNIVERSITY 4326
 INVESTIGATION OF III–V SEMICONDUCTOR MATERIALS FOR OPTIMIZED
 UV PHOTODETECTORS
 12/11/1997 – 12/31/1998 FY99: \$0 Total: \$67,000
Prin. Invest.: B W WESSELS
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 6824 NORTHWESTERN UNIVERSITY 4327
 CLEMENTINE GLOBAL MOSAIC PROCESSING SUPPORT
 01/12/1998 - 12/31/1999 FY99: \$20,800 Total: \$41,695
Prin. Invest.: M ROBINSON
Tech. Officer: GSFC/P ROGERS
CASE Category: 11 - ASTRONOMY

NAG 5 6847 NORTHWESTERN UNIVERSITY 4328
 X-RAYING MOLECULAR CLOUDS
 01/12/1998 - 01/14/2000 FY99: \$27,474 Total: \$57,339
Prin. Invest.: Q WANG
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6874 NORTHWESTERN UNIVERSITY 4329
 THE SIXTH INTERNATIONAL SYMPOSIUM ON PARTICLES, ST RINGS AND
 COSMOLOGY (PASCOS-98)
 01/14/1998 - 12/31/1998 FY99: \$0 Total: \$10,000
Prin. Invest.: P NATH
Tech. Officer: GSFC/H HASAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6927 NORTHWESTERN UNIVERSITY 4330
 TIME LAG MEASUREMENTS OF THE CRAB PULSAR TO INFER THE SIZE OF
 THE X-RAY EMISSION REGION - X
 02/02/1998 - 01/31/1999 FY99: \$0 Total: \$6,000
Prin. Invest.: M ULMER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7011 NORTHWESTERN UNIVERSITY 4331
 THEORETICAL STUDIES OF X-RAY BURSTS IN ACCRETING NEUTRON
 STARS - ATP
 02/18/1998 - 02/14/2000 FY99: \$72,000 Total: \$142,000
Prin. Invest.: R E TAAM
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7280 NORTHWESTERN UNIVERSITY 4332
 XTE PROPOSAL - A SEARCH FOR PULSED X-RAY EMISSION FROM PSR
 B2334+61
 04/15/1998 - 05/31/1999 FY99: \$0 Total: \$8,500
Prin. Invest.: M P ULMER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7889 NORTHWESTERN UNIVERSITY 4333
 A SEARCH FOR GAMMA-RAY EMISSION FROM KNOWN RADIO PULSARS
 12/02/1998 - 12/31/1999 FY99: \$10,000 Total: \$10,000
Prin. Invest.: M P ULMER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7894 NORTHWESTERN UNIVERSITY 4334
 PROMPT OBSERVATIONS OF GAMMA-RAY BURST AFTERGLOWS ABOVE 50
 KEV
 12/02/1998 - 11/30/1999 FY99: \$15,000 Total: \$15,000
Prin. Invest.: S M MATZ
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8023 NORTHWESTERN UNIVERSITY 4335
 OSSE MAPPING OF DIFFUSE 511 KEV AND CONTINUUM EMISSION IN THE
 GALACTIC PLANE
 01/12/1999 - 01/14/2000 FY99: \$11,500 Total: \$11,500
Prin. Invest.: S M MATZ
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8255 NORTHWESTERN UNIVERSITY 4336
 A SPECTRAL STUDY OF GAMMA-RAY BURSTS WITH SMM/GRS (ADP98)
 02/22/1999 - 01/31/2000 FY99: \$20,000 Total: \$20,000
Prin. Invest.: S M MATZ
Tech. Officer: GSFC/D M WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8294 NORTHWESTERN UNIVERSITY 4337
 LESSER THARSIS VOLCANOES: STYLES OF ERUPTION AND RELATIONS
 TO THARSIS FLOOD VOLCANISM
 02/23/1999 - 03/31/2000 FY99: \$34,200 Total: \$34,200
Prin. Invest.: M S ROBINSON
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 9 1053 NORTHWESTERN UNIVERSITY 4338
 RESEARCH FOR ROTATION MEMBRANE WATER PURIFICATION
 12/10/1998 - 12/14/1999 FY99: \$187,453 Total: \$187,453
Prin. Invest.: R M LUEPTOW
Tech. Officer: JSC/N PACKMAN
CASE Category: 46 - MECHANICAL ENGR

NAG 9 1079 NORTHWESTERN UNIVERSITY 4339
 DNA MICROCHIP BASED MICROBIAL MONITORING
 02/26/1999 - 02/29/2000 FY99: \$216,873 Total: \$216,873
Prin. Invest.: D A STAHL
Tech. Officer: JPL/D L JAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 98153 NORTHWESTERN UNIVERSITY 4340
 CONSTELLATION X-RAY MISSION
 06/22/1998 - 09/30/1999 FY99: \$57,047 Total: \$120,047
Prin. Invest.: M P ULMER
Tech. Officer: GSFC/J GRADY, GSFC/R MAUK
CASE Category: 46 - MECHANICAL ENGR

NCC 1 271 NORTHWESTERN UNIVERSITY 4341
 SYNERGISTIC EFFECTS OF PHYSICAL AGING AND DAMAGE TO POLY-
 YMER MATRIX COMPOSITES
 01/09/1998 - 10/31/1999 FY99: \$71,080 Total: \$148,016
Prin. Invest.: L C BRINSON
Tech. Officer: LARC/T GATES
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 1013 NORTHWESTERN UNIVERSITY 4342
 PROPHECY: A HIERARCHICAL TOOL FOR MODELING & ANALYZING PAR-
 ALLEL SCIENTIFIC APPLICATIONS
 01/27/1998 - 09/30/2000 FY99: \$89,669 Total: \$180,084
Prin. Invest.: V E TAYLOR
Tech. Officer: ARC/A GRADY
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1017 NORTHWESTERN UNIVERSITY 4343
 ARTICULATE SOFTWARE FOR SPACE-RELATED OUTREACH ACTIVITIES
 02/05/1998 - 01/31/2000 FY99: \$129,725 Total: \$222,130
Prin. Invest.: K D FORBUS
Tech. Officer: ARC/M H SHIRLEY
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1098 NORTHWESTERN UNIVERSITY 4344
 AN INVESTIGATION OF THE EFFECTS OF OUTSOURCING MAINTENANCE
 ON TASK PERFORMANCE
 03/15/1999 - 11/30/1999 FY99: \$93,453 Total: \$93,453
Prin. Invest.: E J CZEPIEL
Tech. Officer: ARC/B G KANKI, ARC/M CONNORS
CASE Category: 44 - CIVIL ENGR

NGT 5 45 NORTHWESTERN UNIVERSITY 4345
 DEVELOPMENT OF ALGAL UV PHOTODETECTORS
 06/23/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M RAZEHI
Tech. Officer: GSFC/M S BURRELL
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 88 NORTHWESTERN UNIVERSITY 4346
 DEVELOPMENT OF A MOVING GRID RETARDER FOR SUBMILLI METER
 POLARIMETRY OF SGR B2 (STUDENT: DAVID CHUS)
 05/26/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: G NOVAK
Tech. Officer: GSFC/M S BURRELL
CASE Category: 13 - PHYSICS

NGT 5 90 NORTHWESTERN UNIVERSITY 4347
 HIGH DETECTION EFFICIENCY PHOTON COUNTERS AT 1064NM AND THEIR
 USE IN A NOVEL QUANTUM IMAGING SCHEME
 06/03/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: P KUMAR
Tech. Officer: GSFC/M S BURRELL
CASE Category: 45 - ELECTRICAL ENGR

NGT 5 50016 NORTHWESTERN UNIVERSITY 4348
 STUDIES ON SPHERICAL DIFFUSION FLAMES IN MICROGRAVITY
 07/14/1997 - 06/30/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: M MATALON
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50038 NORTHWESTERN UNIVERSITY 4349
 MELTING AND SPREADING EFFECTS IN SMOLDERING AND
 07/14/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: B J MATKOWSKY
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50172 NORTHWESTERN UNIVERSITY 4350
 KILOHERTZ QPO NATURE AND ORIGINS USING RXTE
 05/22/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: MILLER, D LEE
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 13 - PHYSICS

NGT 5 50198 NORTHWESTERN UNIVERSITY 4351
 IMPROVED FEM DYNAMIC SUBSTRUCTURING THROUGH WAVE-BASED
 JOINT MODELS
 06/18/1998 - 08/31/2001 FY99: \$22,000 Total: \$38,500
Prin. Invest.: T IGUSA
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 46 - MECHANICAL ENGR

NGT 5 50211 NORTHWESTERN UNIVERSITY 4352
 STABILITY OF DIFFUSION FLAMES IN MICROGRAVITY
 07/10/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: M MATALON
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 50261 NORTHWESTERN UNIVERSITY 4353
 MICROSTRUCTURAL EVOLUTION OF SOLID-LIQUID MIXTURES STUDENT:
 VICTORIA SNYDER
 07/06/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: P W VORHEES
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50263 NORTHWESTERN UNIVERSITY 4354
 RAPIDLY PROPAGATING BUOYANT FILTRATION COMBUSTION WAVES WITH
 APPLICATIONS TO SMOLDERING & COMBUSTION
 07/09/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: B J MATKOWSKY
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3120 SOUTHERN ILLINOIS UNIVERSITY - CARBONDALE 4355
 GEOPHYSICAL CHARACTERIZATION OF SOME TERRANES AND THE GEO-
 PHYSICAL MODELING OF CANDIDATE SUTURE ZONES
 10/26/1995 - 10/31/1999 FY99: \$16,434 Total: \$67,434
Prin. Invest.: D RAVAT
Tech. Officer: GSFC/R A LANGE, GSFC/P T TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7662 SOUTHERN ILLINOIS UNIVERSITY - CARBONDALE 4356
 COMPREHENSIVE MODELS OF THE NEAR-EARTH MAGNETIC FIELD:
 INTERPRETATION OF THE LITHOSPHERE
 09/09/1998 - 03/14/2000 FY99: \$37,000 Total: \$55,500
Prin. Invest.: D RAVAT
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7771 SOUTHERN ILLINOIS UNIVERSITY - CARBONDALE 4357
 GEOLOGIC INTERPRETATION OF SATELLITE ALTITUDE CRUSTAL MAG-
 NETIC ANOMALY DATA
 11/12/1998 - 04/30/2000 FY99: \$65,500 Total: \$65,500
Prin. Invest.: D RAVAT
Tech. Officer: GSFC/P T TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 2 1081 UNIVERSITY OF CHICAGO 4358
 A POLARIMETER FOR SOFIA
 08/23/1996 - 03/31/1999 FY99: \$0 Total: \$152,463
Prin. Invest.: R H HILDEBRAND
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 6033 UNIVERSITY OF CHICAGO 4359
 SYMPOSIUM ON THE DEVELOPMENT BASIS OF EVOLUTIONARY CHANGE
 04/28/1999 - 09/14/1999 FY99: \$15,625 Total: \$15,625
Prin. Invest.: N PATEL
Tech. Officer: ARC/R D MACELROY, HQ/M M AVERNER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 706 UNIVERSITY OF CHICAGO 4360
 ASTROPHYSICAL STUDIES OF IMP SATELLITE DATA
 10/01/1985 - 09/30/1998 FY99: \$0 Total: \$1,581,071
Prin. Invest.: J A SIMPSON, M G MUNOI
Tech. Officer: GSFC/G BULLOCK
CASE Category: 11 - ASTRONOMY

NAG 5 1485 UNIVERSITY OF CHICAGO 4361
 MAGNETIC FIELD DYNAMICS IN THE SOLAR INTERIOR AND OUTER SOLAR ATMOSPHERE
 11/26/1990 - 04/30/2000 FY99: \$0 Total: \$2,291,640
Prin. Invest.: R ROSNER
Tech. Officer: GSFC/T J BIRMINGHAM
CASE Category: 13 - PHYSICS

NAG 5 2792 UNIVERSITY OF CHICAGO 4362
 MODIFIED LAGRANGIAN-MEAN DIAGNOSTICS OF THE STRATO SPHERIC TRACER TRANSPORT
 11/18/1994 - 05/31/1998 FY99: \$0 Total: \$257,643
Prin. Invest.: N NAKAMURA
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2849 UNIVERSITY OF CHICAGO 4363
 STATISTICAL ANALYSIS OF ATMOSPHERIC TEMPERATURE AND OZONE DATA TREND FEATURES AND COMPARISONS, ETC
 12/15/1994 - 02/14/1999 FY99: \$0 Total: \$127,370
Prin. Invest.: G C TIAO
Tech. Officer: GSFC/R D MCPETERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2868 UNIVERSITY OF CHICAGO 4364
 FUNDAMENTAL STUDIES IN HIGH ENERGY ASTROPHYSICS
 01/09/1995 - 03/14/1999 FY99: \$0 Total: \$243,000
Prin. Invest.: D Q LAMB
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3076 UNIVERSITY OF CHICAGO 4365
 STUDIES OF CLASSICAL NOVAE: CONFRONTATION OF THEORY WITH OBSERVATIONS
 09/22/1995 - 09/30/1999 FY99: \$0 Total: \$77,751
Prin. Invest.: S G TRURAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3202 UNIVERSITY OF CHICAGO 4366
 IMAGE OF A CANDIDATE HIGH REDSHIFT X-RAY CLUSTER OF GALAXIES
 04/12/1996 - 10/14/1998 FY99: \$0 Total: \$9,196
Prin. Invest.: R NICHOL
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 3228 UNIVERSITY OF CHICAGO 4367
 ABUNDANCES AND PHYSICAL CONDITIONS FOR INDIVIDUALS INTERSTELLAR CLOUDS
 05/07/1996 - 04/30/2000 FY99: \$125,300 Total: \$479,600
Prin. Invest.: D E WELTY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3253 UNIVERSITY OF CHICAGO 4368
 MICROWAVE ANISOTROPY PROBE FOR MIDEX
 06/06/1996 - 06/14/1999 FY99: \$40,263 Total: \$99,620
Prin. Invest.: S S MEYER
Tech. Officer: GSFC/C L BENNETT
CASE Category: 11 - ASTRONOMY

NAG 5 3670 UNIVERSITY OF CHICAGO 4369
 ANALYSIS AND MODELING OF CYCLOTRON LINES IN THE SP BURSTS; CONSTRAINTS ON THE DISTANCE SCALE TO COSMO
 12/31/1996 - 12/31/1999 FY99: \$0 Total: \$55,000
Prin. Invest.: D Q LAMB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3687 UNIVERSITY OF CHICAGO 4370
 ACCRETION AND OUTFLOW PHENOMENA IN YOUNG STELLAR O
 01/15/1997 - 01/14/2000 FY99: \$100,000 Total: \$363,200
Prin. Invest.: A KONIGL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3986 UNIVERSITY OF CHICAGO 4371
 ISOTOPIC STUDIES OF THE MOON AND METEORITES
 02/26/1997 - 03/31/2001 FY99: \$309,167 Total: \$770,000
Prin. Invest.: D N CLAYTON
Tech. Officer: GSFC/J BOYCE
CASE Category: 12 - CHEMISTRY

NAG 5 4070 UNIVERSITY OF CHICAGO 4372
 INFRARED SPECTROSCOPY OF MOLECULAR IONS OF ASTROPH
 03/19/1997 - 12/31/1999 FY99: \$28,875 Total: \$154,000
Prin. Invest.: D OKA
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4087 UNIVERSITY OF CHICAGO 4373
 ANALYSIS OF ICE-SHELF TEARING AND FLOW SEPARATION
 03/10/1997 - 12/31/1998 FY99: \$0 Total: \$33,880
Prin. Invest.: D MACAYEAL
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4153 UNIVERSITY OF CHICAGO 4374
 ARCHIVING THE CRRES ONR-604 EXPERIMENT DATASET AND NSSDC
 03/17/1997 - 03/31/1998 FY99: \$0 Total: \$33,946
Prin. Invest.: D PYLE
Tech. Officer: GSFC/J WILLETT
CASE Category: 13 - PHYSICS

NAG 5 4234 UNIVERSITY OF CHICAGO 4375
 BARYONS IN THE UNIVERSE: FROM REDSHIFT 10010 TO TH
 03/24/1997 - 03/31/1999 FY99: \$0 Total: \$35,000
Prin. Invest.: D N SCHRAMM
Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 4297 UNIVERSITY OF CHICAGO 4376
 PRESOLAR GRAINS AND THE EARLY SOLAR SYSTEM
 04/04/1997 - 11/30/1999 FY99: \$150,000 Total: \$507,595
Prin. Invest.: D S LEWIS
Tech. Officer: GSFC/D NAVA
 CASE Category: 11 - ASTRONOMY

NAG 5 4298 UNIVERSITY OF CHICAGO 4377
 REFRACTORY INCLUSIONS IN CARBONACEOUS CHONDRITES
 04/04/1997 - 02/29/2000 FY99: \$118,667 Total: \$267,000
Prin. Invest.: D M DAVIS
Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4406 UNIVERSITY OF CHICAGO 4378
 STUDY OF THE SYSTEMATIC ERRORS IN THE POSITIONS O
 05/06/1997 - 05/14/1999 FY99: \$0 Total: \$41,000
Prin. Invest.: D Q LAMB
Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 4461 UNIVERSITY OF CHICAGO 4379
 STELLAR ORIGINS AND INTERSTELLAR CARRIERS OF NUCLEOMALIES
 05/21/1997 - 03/31/1999 FY99: \$40,000 Total: \$80,000
Prin. Invest.: D N CLAYTON
Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4462 UNIVERSITY OF CHICAGO 4380
 MILLIMETER APERTURE SYNTHESIS POLARIMETRY AND THE N OF
 PROTO-PLANETARY DISKS
 06/09/1997 - 09/30/2000 FY99: \$80,000 Total: \$158,776
Prin. Invest.: D E CARLSTROM
Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4476 UNIVERSITY OF CHICAGO 4381
 CHEMICAL ASPECTS OF THE ORIGIN OF THE SOLAR SYSTEM
 06/09/1997 - 11/30/2000 FY99: \$430,000 Total: \$648,000
Prin. Invest.: D GROSSMAN
Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4499 UNIVERSITY OF CHICAGO 4382
 MARS 94 PARTICIPATING SCIENTIST AND CO-INVESTIGATO
 05/06/1997 - 04/30/1999 FY99: \$0 Total: \$60,000
Prin. Invest.: D E ECONOMOU
Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4509 UNIVERSITY OF CHICAGO 4383
 GINGA GAMMA-RAY BURST LINE OCCURRENCE
 05/15/1997 - 05/14/1999 FY99: \$0 Total: \$47,900
Prin. Invest.: D Q LAMB
Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 4702 UNIVERSITY OF CHICAGO 4384
 MINERALOGY AND CHEMISTRY OF PLANETS AND METEORITES
 06/11/1997 - 05/31/1999 FY99: \$0 Total: \$30,000
Prin. Invest.: D M STEELE
Tech. Officer: GSFC/D F NAVA
 CASE Category: 11 - ASTRONOMY

NAG 5 4777 UNIVERSITY OF CHICAGO 4385
 PHYSICAL INVESTIGATORS RELATED TO RAIN AND RETRIEV OF RAIN AND
 LATENT HEATING
 06/20/1997 - 06/30/2000 FY99: \$51,000 Total: \$227,668
Prin. Invest.: R C SRIVASTAVA
Tech. Officer: GSFC/O W THIELE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4953 UNIVERSITY OF CHICAGO 4386
 TURBULENT CONVECTION AND ITS ROLE IN ACOUSTIC EMIS
 06/23/1997 - 04/30/2001 FY99: \$138,242 Total: \$273,150
Prin. Invest.: D CATTANEO
Tech. Officer: GSFC/W J WAGNER
 CASE Category: 13 - PHYSICS

NAG 5 5070 UNIVERSITY OF CHICAGO 4387
 HIGH ENERGY ANTIMATTER TELESCOPE (HEAT)
 05/03/1996 - 11/30/1999 FY99: \$0 Total: \$727,000
Prin. Invest.: D MULLER
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
 CASE Category: 13 - PHYSICS

NAG 5 5071 UNIVERSITY OF CHICAGO 4388
 STUDIES OF THE COSMIC RADIATION AT HIGH ENERGIES
 05/03/1996 - 11/30/1999 FY99: \$0 Total: \$672,000
Prin. Invest.: S P SWORDY
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
 CASE Category: 13 - PHYSICS

NAG 5 5072 UNIVERSITY OF CHICAGO 4389
 EXPERIMENTS IN HIGH ENERGY ASTROPHYSICS
 05/03/1996 - 11/30/1999 FY99: \$560,024 Total: \$1,155,024
Prin. Invest.: D MULLER
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
 CASE Category: 13 - PHYSICS

NAG 5 5089 UNIVERSITY OF CHICAGO 4390
 GIANT PLATFORMS FOR COSMIC RAY OBSERVATIONS ABOVE THE
 ATMOSPHERE
 11/14/1996 - 09/30/1999 FY99: \$0 Total: \$235,139
Prin. Invest.: D MULLER
Tech. Officer: GSFC/M C NEEDLEMAN, GSFC/N A MERRITT
 CASE Category: 13 - PHYSICS

NAG 5 5178 UNIVERSITY OF CHICAGO 4391
 STUDY OF A TRANSITION RADIATION DETECTOR FOR THE ACCESS MIS-
 SION
 03/30/1998 - 12/31/1999 FY99: \$189,000 Total: \$334,000
Prin. Invest.: S P SWORDY
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5179 UNIVERSITY OF CHICAGO 4392
 ORIGINS OF GALACTIC COSMIC RADIATION: TESTING ALTERNATE MODELS
 WITH RADIOACTIVE & STABLE ISOTOPE
 03/09/1998 - 09/30/1999 FY99: \$40,000 Total: \$80,000
Prin. Invest.: J A SIMPSON
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5223 UNIVERSITY OF CHICAGO 4393
 GRANT NAG5-5223 - HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) PI
 DR. DIETRICH MULLER
 03/16/1999 - 03/11/2002 FY99: \$200,000 Total: \$200,000
Prin. Invest.: D MULLER
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5229 UNIVERSITY OF CHICAGO 4394
 GRANT NAG5-5229 STUDIES OF THE COSMIC RADIATION AT HIGH ENER-
 GIES PI PROF SWORDY
 03/16/1999 - 03/11/2002 FY99: \$160,000 Total: \$160,000
Prin. Invest.: SWORDY
Tech. Officer: GSFC/B MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6405 UNIVERSITY OF CHICAGO 4395
 STRUCTURE, KINEMATICS & ABUNDANCES IN LOCAL ISM (LTSA)
 10/10/1997 - 10/14/1999 FY99: \$64,099 Total: \$125,099
Prin. Invest.: P FRISCH
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6472 UNIVERSITY OF CHICAGO 4396
 PIONEER - 10 INVESTIGATIONS OF JOVIAN AND HELIOSPHERIC RELATIV-
 ISTIC ELECTRONS
 11/13/1997 - 10/31/1999 FY99: \$94,014 Total: \$144,014
Prin. Invest.: J SIMPSON
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6489 UNIVERSITY OF CHICAGO 4397
 DEVELOPMENT OF FREQUENCY SELECTIVE BOLOMETERS
 01/15/1998 - 10/31/1999 FY99: \$125,000 Total: \$250,000
Prin. Invest.: D MEYER
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 6625 UNIVERSITY OF CHICAGO 4398
 WORKSHOP ON INTERSTELLAR DUST IN THE SOLAR SYSTEM
 11/19/1997 - 11/30/1999 FY99: \$0 Total: \$25,000
Prin. Invest.: P D FRISCH
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 6693 UNIVERSITY OF CHICAGO 4399
 THE PRACTICAL AND OBSERVATIONAL INVESTIGATIONS OF LAGRANGIAN-
 MEAN TRACER TRANSPORT IN THE STRATOSPHERE
 12/04/1997 - 12/31/1999 FY99: \$97,741 Total: \$190,851
Prin. Invest.: D NAKAMURA
Tech. Officer: GSFC/C JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6765 UNIVERSITY OF CHICAGO 4400
 ISM TOWARD ETA UMA
 12/30/1997 - 12/31/1999 FY99: \$0 Total: \$15,000
Prin. Invest.: P FRISCH
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 6957 UNIVERSITY OF CHICAGO 4401
 THE SPECTRA OF BL LAC OBJECTS BETWEEN GEV AND TEV ENERGIES
 02/06/1998 - 01/31/1999 FY99: \$0 Total: \$6,048
Prin. Invest.: R A ONG
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6972 UNIVERSITY OF CHICAGO 4402
 MASS LOSS KINETICS AND ISOTOPE FRACTIONATION OF MOL TEN CAI COM-
 POSITIONS
 03/13/1998 - 05/31/2000 FY99: \$55,000 Total: \$100,000
Prin. Invest.: F M RICHTER
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7077 UNIVERSITY OF CHICAGO 4403
 BOUNDARY CONDITIONS OF THE HELIOSPHERE
 02/23/1998 - 04/30/2000 FY99: \$67,000 Total: \$100,500
Prin. Invest.: P C FRISCH
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 7163 UNIVERSITY OF CHICAGO 4404
 DEVELOPMENT OF A MINIATURIZED LOW-ENERGY SOLAR NEUTRON
 DETECTOR FOR APPLICATION TO NEAR-SUNEXPLORA
 03/12/1998 - 04/14/2000 FY99: \$43,933 Total: \$109,823
Prin. Invest.: R MCKIBBEN
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7172 UNIVERSITY OF CHICAGO 4405
 CHEMICAL ASPECTS OF THE ORIGIN OF THE SOLAR SYSTEM
 03/24/1998 - 02/28/1999 FY99: -\$210,000 Total: \$0
Prin. Invest.: L GROSSMAN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7212 UNIVERSITY OF CHICAGO 4406
 NUCLEOSYNTHETIC ISOTOPIC ANOMALIES
 03/26/1998 - 03/31/2001 FY99: \$16,667 Total: \$40,000
Prin. Invest.: R CLAYTON
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7307 UNIVERSITY OF CHICAGO 4407
 KINETICS OF VOLATILIZATION OF INTERSTELLAR GRAINS
 04/22/1998 - 03/31/2000 FY99: \$111,550 Total: \$158,800
Prin. Invest.: L GROSSMAN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7308 UNIVERSITY OF CHICAGO 4408
 MINERALOGY AND CHEMISTRY OF PLANETS AND METEORITES
 06/10/1998 - 05/31/2000 FY99: \$0 Total: \$23,000
Prin. Invest.: I M STEELE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7529 UNIVERSITY OF CHICAGO 4409
 CRYOGENIC STRIPLINE MULTIPLEXERS
 06/10/1998 - 06/14/1999 FY99: \$0 Total: \$22,820
Prin. Invest.: S MEYER
Tech. Officer: GSFC/G HINSHAW
CASE Category: 11 - ASTRONOMY

NAG 5 7731 UNIVERSITY OF CHICAGO 4410
 RADIATIVE-DYNAMIC PROBLEMS RELATED TO THE ATMOSPHERE OF
 EARLY MARS
 09/24/1998 - 09/30/2001 FY99: \$0 Total: \$80,836
Prin. Invest.: R PIERREHUMBERT
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7880 UNIVERSITY OF CHICAGO 4411
 EXPERIMENTAL INVESTIGATION OF OBLIQUE JETTING IMPACTS
 11/30/1998 - 11/30/1999 FY99: \$30,000 Total: \$30,000
Prin. Invest.: G H MILLER
Tech. Officer: GSFC/J GRANT
CASE Category: 11 - ASTRONOMY

NAG 5 7986 UNIVERSITY OF CHICAGO 4412
 GALAXY CLUSTERS AS COSMOLOGICAL PROBES: ANALYSES OF X-RAY,
 LENSING, AND SUNYAEV-ZELDOVICH MEASUREMENTS
 01/03/1999 - 12/31/1999 FY99: \$130,389 Total: \$130,389
Prin. Invest.: J E CARLSTROM
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8032 UNIVERSITY OF CHICAGO 4413
 ASTROPHYSICAL STUDIES WITH IMP SATELLITE DATA
 01/19/1999 - 12/31/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: C LOPATE
Tech. Officer: GSFC/J KING
CASE Category: 11 - ASTRONOMY

NAG 5 8163 UNIVERSITY OF CHICAGO 4414
 THE JOURNEY OF THE SUN - A VIRTUAL REALITY SIMULATION
 02/08/1999 - 01/31/2000 FY99: \$111,925 Total: \$111,925
Prin. Invest.: P C FRISCH
Tech. Officer: GSFC/J BREDEKAP
CASE Category: 11 - ASTRONOMY

NAG 5 8495 UNIVERSITY OF CHICAGO 4415
 RESEARCH: "HYDROMAGNETIC AND MAGNETOHYDRODYNAMIC PROCESSES ON SUN". ONE YEAR STUDY FUNDED BY NASA'S
 05/10/1999 - 05/14/2000 FY99: \$111,000 Total: \$111,000
Prin. Invest.: R ROSNER
Tech. Officer: GSFC/J M GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 8539 UNIVERSITY OF CHICAGO 4416
 PRIOR GRANT: NAG5-3253 CONTINUATION OF MAP SCIENCE SUPPORT
 ACTIVITIES BEING IMPLEMENTED BY THE MAP
 08/17/1999 - 08/15/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: S MEYER
Tech. Officer: GSFC/C BENNETT
CASE Category: 11 - ASTRONOMY

NAG 5 8571 UNIVERSITY OF CHICAGO 4417
 PERIODIC, QUASI-PERIODIC, AND BURSTING BEHAVIOR OF NEUTRON
 STAR X-RAY SOURCES
 05/25/1999 - 05/31/2000 FY99: \$71,000 Total: \$71,000
Prin. Invest.: M MILLER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8703 UNIVERSITY OF CHICAGO 4418
 194TH MEETING OF THE AMERICAN ASTRONOMICAL SOCIETY CHICAGO,
 ILLINOIS, MAY 30 - JUNE 3, 1999
 07/21/1999 - 10/31/1999 FY99: \$7,500 Total: \$7,500
Prin. Invest.: R KRON
Tech. Officer: GSFC/P CRANE
CASE Category: 11 - ASTRONOMY

NAG 5 8708 UNIVERSITY OF CHICAGO 4419
 RADIO INTERFEROMETRIC STUDIES OF COMETS AND ASTEROIDS
 07/20/1999 - 12/31/1999 FY99: \$30,000 Total: \$30,000
Prin. Invest.: P PALMER
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 8817 UNIVERSITY OF CHICAGO 4420
 CRYOGENIC STRIPLINE MULTIPLEXERS
 09/03/1999 - 06/14/2000 FY99: \$25,470 Total: \$25,470
Prin. Invest.: S MEYER
Tech. Officer: GSFC/G F HINSHAW
CASE Category: 11 - ASTRONOMY

NAG 9 1096 UNIVERSITY OF CHICAGO 4421
 GENESIS PHASE C/D
 04/02/1999 - 01/11/2002 FY99: \$20,000 Total: \$20,000
Prin. Invest.: M HUMAYYO
Tech. Officer: JSC/K CYR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 1847 UNIVERSITY OF CHICAGO 4422
 FURTHER DEVELOPMENT OF ALPHA PARTICLE INSTRUMENT WITH ALPHA
 PROTON AND X-RAY MODES
 03/13/1990 - 12/31/1998 FY99: \$0 Total: \$1,077,734
Prin. Invest.: T ECONOMU
Tech. Officer: HQ/P R MAHAFFY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 2578 UNIVERSITY OF CHICAGO 4423
 MARS '94 PARTICIPATING SCIENTIST AND COINVESTIGATOR PROGRAM
 08/16/1991 - 04/30/1999 FY99: \$0 Total: \$797,008
Prin. Invest.: T ECONOMOU
Tech. Officer: HQ/W L QUAIDE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 4682 UNIVERSITY OF CHICAGO 4424
 INTERSTELLAR GAS AND YOUNG STARS IN THE GALACTIC HALO
 08/04/1995 - 08/31/1998 FY99: \$0 Total: \$34,135
Prin. Invest.: L M HOBBS
Tech. Officer: HQ/R A STACHNIK
CASE Category: 11 - ASTRONOMY

NCC 2 1103 UNIVERSITY OF CHICAGO 4425
 NUMERICAL EXPERIMENTS ON THE DYNAMICS OF GALAXIES
 04/01/1999 - 08/31/2000 FY99: \$5,000 Total: \$5,000
Prin. Invest.: R N MILLER
Tech. Officer: ARC/B F SMITH
CASE Category: 11 - ASTRONOMY

NCC 5 151 UNIVERSITY OF CHICAGO 4426
 GRAND CHALLENGE RESEARCH
 08/26/1996 - 08/26/1999 FY99: \$275,000 Total: \$1,740,000
Prin. Invest.: A MALAGOLI
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 5 19 UNIVERSITY OF CHICAGO 4427
 TEMPERATURE ANISOTROPIES IN THE COSMIC MICROWAVE BACKGROUND RADIATION (CMBR)
 07/15/1996 - 07/14/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: M S TURNER, NONE
Tech. Officer: GSFC/G A SOFFEN, GSFC/E CHENG
CASE Category: 11 - ASTRONOMY

NGT 5 63 UNIVERSITY OF CHICAGO 4428
 USING POP-UP DETECTOR ARRAYS FOR POLARIMETRY
 06/04/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R H HILDERBRAND
Tech. Officer: GSFC/M S BURRELL
CASE Category: 13 - PHYSICS

NGT 5 86 UNIVERSITY OF CHICAGO 4429
 MEASUREMENTS OF ANISOTROPY IN THE COSMIC MICROWAVE BACKGROUND WITH THE TOPHAT-SPINNER TELESCOPE/STU
 05/20/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: S MEYER
Tech. Officer: GSFC/M S BURRELL
CASE Category: 13 - PHYSICS

NGT 5 30086 UNIVERSITY OF CHICAGO 4430
 SENSITIVITY OF THE WEST ANTARCTIC ICE SHEET TO CLIMATE INTERNAL FLOW PROCESSES, INVESTIGATED WITH A FINI
 09/09/1997 - 02/28/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: D MACAYEAL
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50005 UNIVERSITY OF CHICAGO 4431
 ELEMENTAL COMPOSITION OF HIGH ENERGY COSMIC RAYS
 11/25/1996 - 09/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: D MULLER
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 13 - PHYSICS

NGT 5 50140 UNIVERSITY OF CHICAGO 4432
 WEAK GRAVITATIONAL LENSING WITH LARGE FIELD OF VIEW
 09/10/1997 - 06/30/1998 FY99: -\$15,218 Total: \$6,782
Prin. Invest.: J FREIMAN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50142 UNIVERSITY OF CHICAGO 4433
 STATISTICAL ANALYSIS OF THE COSMIC MICROWAVE BACKGROUND
 09/10/1997 - 06/30/1999 FY99: \$22,000 Total: \$44,000
Prin. Invest.: D SCHRAM
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50173 UNIVERSITY OF CHICAGO 4434
 X-RAY AND SUNYAEV-ZELD'OVICH IMAGING OF GALAXY CLUSTERS AS COSMOLOGICAL PROBES
 05/22/1998 - 08/31/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J E CARLSTROM/REESE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 8 52838 UNIVERSITY OF CHICAGO 4435
 GRADUATE STUDENT RESEARCH PROGRAM
 07/11/1997 - 09/10/1999 FY99: -\$16,988 Total: \$27,012
Prin. Invest.: T K MINTON
Tech. Officer: MSFC/J ZWIENER
CASE Category: 12 - CHEMISTRY

NAG 2 1172 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4436
 DATA INTENSIVE COMPUTING OF HYBRID SYSTEM DATA
 01/12/1998 - 12/31/1999 FY99: \$50,000 Total: \$120,000
Prin. Invest.: R GROSSMAN
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1358 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4437
 AN ULTRASTRUCTURAL STUDY OF DEVELOPMENT IN VESTIBULAR HAIR CELLS, & THEIR CELLULAR RESPONSES TO HYP
 07/23/1999 - 12/31/1999 FY99: \$62,236 Total: \$62,236
Prin. Invest.: A LYSAKOWSKI
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1631 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4438
 THE EFFECTS OF SOOTING IN REDUCED GRAVITY DROPLET COMBUSTION
 06/24/1994 - 05/31/1999 FY99: \$0 Total: \$345,933
Prin. Invest.: M Y CHOI, NONE
Tech. Officer: GRC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1905 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4439
 FLUID DYNAMICS AND SOLIDIFICATION OF MOLTEN SOLDER DROPLETS
 IMPACTING ON A SUBSTRATE IN MICROGRAVITY
 06/10/1996 - 06/09/2000 FY99: \$100,000 Total: \$312,986
Prin. Invest.: D POULIKAKOS
Tech. Officer: GRC/W DUVAL
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 4593 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4440
 ULTRASTRUCTURAL, NEUROCHEMICAL AND DEVELOPMENTAL RESEARCH IN HYPER-
 GRAVITY
 05/19/1997 - 05/14/2000 FY99: \$47,574 Total: \$160,431
Prin. Invest.: A LYSAKOWSKI
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 7600 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4441
 PARAMETERIZATION OF AN ANSIO THERMAL VEGETATION
 07/21/1998 - 07/14/2000 FY99: \$0 Total: \$50,006
Prin. Invest.: R D CRAGO
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 8359 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4442
 SATELLITE-BASED ESTIMATION OF AERODYNAMIC ROUGHNESSES FOR
 GLOBAL CLIMATE STUDIES
 03/11/1999 - 03/14/2000 FY99: \$15,000 Total: \$15,000
Prin. Invest.: R D CRAGO
Tech. Officer: GSFC/M F JASINSKI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1248 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4443
 THREE DIMENSIONAL VELOCITY FIELD CHARACTERIZATION IN A BRIDG-
 MAN APPARATUS
 04/30/1996 - 04/29/2000 FY99: \$100,000 Total: \$341,667
Prin. Invest.: S S CHA
Tech. Officer: MSFC/P DOTY, MSFC/R POWER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1261 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4444
 RESEARCH "COMBUSTION SYNTHESIS OF MATERIALS IN MICROGRAVITY"
 04/25/1996 - 04/30/2000 FY99: \$120,000 Total: \$363,531
Prin. Invest.: K BREZINSKY
Tech. Officer: MSFC/P DOTY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1473 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4445
 MICROGRAVITY INVESTIGATION OF DYNAMIC OXYGEN ABSORPTION IN
 MOLTEN SOLDER JETTING
 04/13/1998 - 01/31/2002 FY99: \$96,666 Total: \$163,333
Prin. Invest.: C MEGARIDIS
Tech. Officer: MSFC/C TALLEY
CASE Category: 46 - MECHANICAL ENGR

NAS 3 99189 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4446
 DEFECT ENGINEERING & RELIABILITY STUDY OF SIC HIGH-POWER
 DEVICES
 09/09/1999 - 06/08/2000 FY99: \$224,999 Total: \$224,999
Prin. Invest.: K SHENAI
Tech. Officer: GRC/P J GEORGE
CASE Category: 45 - ELECTRICAL ENGR

NCC 3 655 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4447
 EXPERIMENTS AND MODEL DEVELOPMENT FOR INVESTIGATION OF
 SOOTING AND RADIATION EFFECTS IN MICROGRAVITY
 12/29/1998 - 01/04/2003 FY99: \$140,846 Total: \$140,846
Prin. Invest.: Y CHOI
Tech. Officer: GRC/D L URBAN
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 665 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4448
 INVESTIGATION OF SOOTING AND RADIATION EFFECTS IN MICROGRAVITY
 DROPLET COMBUSTION USING JAPAN'S JAMI
 02/02/1999 - 01/03/2000 FY99: \$25,155 Total: \$25,155
Prin. Invest.: M Y CHOI
Tech. Officer: GRC/D L URBAN
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 688 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4449
 GRAVITATIONAL EFFECTS ON PARTIALLY-PREMIXED FLAMES GRAVITA-
 TIONAL EFFECTS ON PARTIALLY-PREMIXED FLAME
 03/16/1999 - 03/09/2003 FY99: \$67,503 Total: \$67,503
Prin. Invest.: D K PURI
Tech. Officer: GRC/K R SACKSTEDER
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 694 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4450
 THE EXTINCTION OF LOW STRAIN RATE DIFFUSION FLAMES BY AN AGENT
 IN MICROGRAVITY
 03/22/1999 - 03/21/2003 FY99: \$13,957 Total: \$13,957
Prin. Invest.: I K PURI
Tech. Officer: GRC/S L OLSON
CASE Category: 49 - ENGINEERING, OTHER

NGT 3 52300 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4451
 GRADUATE STUDENT RESEARCH PROGRAM
 08/21/1995 - 08/20/1998 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C MEGARIDIS
Tech. Officer: GRC/L SHAW
CASE Category: 46 - MECHANICAL ENGR

NGT 3 52322 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4452
 GRADUATE STUDENT RESEARCHERS PROGRAM
 09/11/1996 - 08/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: M Y CHOI
Tech. Officer: GRC/F MONTEGANI
CASE Category: 46 - MECHANICAL ENGR

NGT 3 52337 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4453
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/19/1997 - 07/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: C MEGARIDIS
Tech. Officer: GRC/F MONTEGANI
CASE Category: 46 - MECHANICAL ENGR

NGT 3 50155 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4454
 MODELLING OF SOOTING AND RADIATION EFFECTS IN DROP SAMUEL
 MANZELLO
 09/11/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M CHOI
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50214 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4455
 EXPERIMENTAL INVESTIGATION OF ENVIRONMENT OXYGEN CONTENT IN
 SOLDER JET TECHNOLOGY (STUDENT: ERIC
 07/22/1998 - 07/31/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C M MEGARIDIS
Tech. Officer: HQ/A NURRIDIN
 CASE Category: 46 - MECHANICAL ENGR

NGT 8 52867 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4456
 PLASMA ASSISTED BINDER BURNOUT
 07/27/1998 - 09/10/1999 FY99: -\$3,561 Total: \$18,439
Prin. Invest.: A FRIDMAN
Tech. Officer: MSFC/J F DOWDY
 CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 613 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4457
 CENTER OF EXCELLENCE IN AEROSPACE COMPUTING RESEARCH AND
 TECHNOLOGY
 08/26/1985 - 06/30/1998 FY99: -\$1 Total: \$6,827,503
Prin. Invest.: R K IYER, J K W-S LIU
Tech. Officer: LARC/K A SMITH
 CASE Category: 22 - COMPUTER SCIENCE

NAG 1 2221 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4458
 EVALUATION INTERACTIONS BETWEEN CHEMICAL AND CLIMATE PRO-
 CESSSES IN THE TROPOSPHERE & STRATOSPHERE
 08/20/1999 - 07/31/2002 FY99: \$55,000 Total: \$55,000
Prin. Invest.: D J WUBBLES
Tech. Officer: LARC/G MADDREA, LARC/L R POOLE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1031 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4459
 DUCTILE TEARING OF SURFACE CRACKS: COMPUTATIONAL PROCE-
 DURES & APPLICATIONS
 03/08/1996 - 09/30/1999 FY99: \$0 Total: \$99,054
Prin. Invest.: R H DODDS, JR.
Tech. Officer: ARC/T L PANONTIN
 CASE Category: 47 - METAL & MATERIALS ENGR

NAG 2 1120 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4460
 SEAMLESS DISPLAYS FOR AIRCRAFT LANDING
 03/27/1997 - 10/14/1999 FY99: \$60,637 Total: \$217,394
Prin. Invest.: C D WICKENS
Tech. Officer: ARC/D C FOYLE
 CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 2 1126 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4461
 ADVANCEMENTS IN 3-D NUMERICAL MODELING OF DUCTILE FRACTURE
 04/11/1997 - 09/30/1999 FY99: \$144,750 Total: \$434,112
Prin. Invest.: R H DODDS, JR.
Tech. Officer: ARC/R W HAMPTON, ARC/J C NEWMAN, JR.
 CASE Category: 46 - MECHANICAL ENGR

NAG 2 1224 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4462
 ATTENTION BASE SITUATION AWARENESS SUPPORT FOR ROTORCRAFT
 OPERATIONS
 07/23/1998 - 01/14/1999 FY99: \$0 Total: \$65,816
Prin. Invest.: C D WICKENS
Tech. Officer: ARC/S G HART, ARC/R J SHIVELY
 CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 2 1250 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4463
 APPLICATION/SYSTEM ZOS INNERFACE CAPABILITIES
 08/14/1998 - 12/31/1999 FY99: \$0 Total: \$100,000
Prin. Invest.: K NAHRSTEDT
Tech. Officer: ARC/K A FREEMAN, ARC/B H WHITAKER
 CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1282 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4464
 INCREMENTAL TRANSFER OF TRAINING EFFECTIVENESS OF AVIATION
 TRAINING DEVICES
 01/13/1999 - 08/31/1999 FY99: \$99,112 Total: \$99,112
Prin. Invest.: H L TAYLOR, G L BRADSHAW, T W EMANUEL
Tech. Officer: ARC/I BARSHI
 CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 3 1704 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4465
 MODELING OF MICROGRAVITY COMBUSTION EXPERIMENTS - PHASE II
 03/16/1995 - 05/31/1999 FY99: \$8,000 Total: \$286,000
Prin. Invest.: J D BUCKMASTER
Tech. Officer: GRC/S GOKOGLU
 CASE Category: 21 - MATHEMATICS

NAG 3 1926 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4466
 PREDICTION OF MACROSCOPIC PROPERTIES IN LIQUID HELIUM FROM
 COMPUTER SIMULATION
 07/19/1996 - 07/21/2000 FY99: \$170,000 Total: \$405,000
Prin. Invest.: D M CEPERLEY, N GOLDENFIELD
Tech. Officer: GRC/B S SINGH
 CASE Category: 13 - PHYSICS

NAG 3 1983 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4467
 DEVELOPMENT OF A SHAPE OPTIMIZATION TOOL FOR TRANSONIC COM-
 PRESSORS BASDON NAVIER STOKES PHYSICS
 11/04/1996 - 10/31/1999 FY99: \$46,292 Total: \$135,068
Prin. Invest.: K D LEE
Tech. Officer: GRC/E R MCFARLAND, GRC/J R WOOD
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1988 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4468
 A STUDY OF ICE ACCRETION PHYSICS TO IMPROVE THE PREDICTION OF
 ICE ACCRETION ON AIRCRAFTS
 11/15/1996 - 11/07/1999 FY99: \$128,838 Total: \$294,988
Prin. Invest.: M B BRAGG
Tech. Officer: GRC/D N ANDERSON
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2122 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4469
 FLUID PHYSICS OF FOAM EVOLUTION AND FLOW FLUID PHYSICS OF FOAM
 EVOLUTION AND FLOW
 02/13/1998 - 01/06/2002 FY99: \$100,628 Total: \$181,255
Prin. Invest.: H AREF
Tech. Officer: GRC/B S SINGH
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 2135 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4470
 SMART ICING SYSTEMS SMART ICING SYSTEMS
 03/05/1998 - 11/30/2002 FY99: \$350,000 Total: \$550,000
Prin. Invest.: M B BRAGG, P G VOUHARIS, N B SURTER
Tech. Officer: GRC/T H BOND, GRC/M G PETAPCZUK
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2236 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4471
 DEVELOPMENT OF GRID TECHNOLOGIES FOR SEMI-AUTOMATED ANALYSIS OF ICING EFFECTS ON AIR FOILS
 02/22/1999 - 11/14/1999 FY99: \$30,000 Total: \$30,000
Prin. Invest.: K D LEE
Tech. Officer: GRC/Y K CHOO
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2263 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4472
 WIDEBAND CDMA FOR A SATCOM BASED AVIONICS NETWORK WIDEBAND CDMA FOR A SATCOM BASED AVIONICS NETWORK
 05/03/1999 - 03/31/2002 FY99: \$73,000 Total: \$73,000
Prin. Invest.: U MADHOW
Tech. Officer: GRC/K S CHUN
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2271 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4473
 AERODYNAMICS FLOWFIELD CHARACTERIZATION FOR ICING AERODYNAMICS FLOWFIELD CHARACTERIZATION FOR ICING
 06/28/1999 - 11/01/1999 FY99: \$81,000 Total: \$81,000
Prin. Invest.: D B BRAGG
Tech. Officer: GRC/H E ADDY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 1900 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4474
 DIFFUSE SOFT X-RAY EMISSION FROM THE DUMBBELL NEBULA (NGC6853)?
 02/20/1992 - 03/31/1998 FY99: \$0 Total: \$162,950
Prin. Invest.: Y H CHU
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2040 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4475
 EOSDIS VERSION 0 STANDARD DATA FORMAT SUPPORT
 07/16/1992 - 12/31/1999 FY99: \$782,804 Total: \$2,030,045
Prin. Invest.: M FOLK
Tech. Officer: GSFC/C CARLISLE
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2244 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4476
 INTELLIGENT COMMAND AND CONTROL SYSTEM FOR SATELLITE GROUND OPERATIONS
 04/14/1993 - 04/14/1998 FY99: -\$112 Total: \$144,292
Prin. Invest.: P M JONES
Tech. Officer: GSFC/A W STOFFEL
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2667 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4477
 ADAPTIVE PARALLEL METHODS FOR REACTIVE FLUID DYNAMICS AND PARTICLE DYNAMICS
 08/01/1994 - 07/31/1998 FY99: \$3,399 Total: \$93,399
Prin. Invest.: D BALSARA
Tech. Officer: GSFC/J R FISCHER
CASE Category: 11 - ASTRONOMY

NAG 5 2925 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4478
 THEORETICAL STUDIES OF X-RAY AND GAMMA RAY EMISSION BY NEUTRON STARS, WHITE DWARF AND BLACK.
 03/22/1995 - 03/31/1999 FY99: \$0 Total: \$335,500
Prin. Invest.: F K LAMB
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2988 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4479
 SNR AND STELLAR WIND HEATING OF SUPERBUBBLES
 06/28/1995 - 01/14/1998 FY99: \$0 Total: \$47,773
Prin. Invest.: Y CHU
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3099 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4480
 A SYSTEMATIC STUDY OF EXPLOSIONS IN CORE COLLAPSE SUPERNOVAE
 10/05/1995 - 03/31/1999 FY99: -\$28,837 Total: \$371,163
Prin. Invest.: F D SWETSY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3246 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4481
 A COMPREHENSIVE INVESTIGATION OF THE STRUCTURING OF THE INTERSTELLAR MEDIUM BY MASSIVE STARS
 05/29/1996 - 04/30/2000 FY99: \$30,000 Total: \$180,000
Prin. Invest.: Y CHU
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3350 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4482
 ISO GUEST OBSERVER SUPPORT FOR DATA ANALYSIS
 08/09/1996 - 08/14/1999 FY99: \$0 Total: \$89,420
Prin. Invest.: M MELXNER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3420 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4483
 ASTROPHYSICAL STUDIES OF COMPACT STARS ON THE SUPERCOMPUTER
 10/01/1996 - 09/30/1998 FY99: \$44,600 Total: \$120,600
Prin. Invest.: S L SHAPIRO
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3661 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4484
 THE LAND SURFACE COMPONENT OF THE CLIMATE SYSTEM:
 12/19/1996 - 12/14/1999 FY99: \$75,654 Total: \$225,899
Prin. Invest.: P KUMAR
Tech. Officer: GSFC/R D KOSTER, GSFC/E T ENGMAN
CASE Category: 11 - ASTRONOMY

NAG 5 3923 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4485
 RADIATION HYDRODYNAMICS AND THE CHEMICAL
 02/19/1997 - 02/14/2000 FY99: \$81,500 Total: \$232,980
Prin. Invest.: M L NORMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4044 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4486
 ASSESSING THE ROLE OF COUPLING BETWEEN CHEMISTRY A
 03/17/1997 - 06/30/1999 FY99: \$0 Total: \$190,176
Prin. Invest.: D J WUEBLES
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4228 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4487
 ACCESSING SPACE SCIENCE DATA USING THE INTERNET
 04/14/1997 - 09/30/1999 FY99: \$0 Total: \$320,000
Prin. Invest.: M MCGRATH
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4292 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4488
 RADIO INTERFEROMETRIC STUDIES OF COMETS
 04/15/1997 - 12/31/1999 FY99: \$8,333 Total: \$100,000
Prin. Invest.: D E SNYDER
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4414 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4489
 "MODELING STUDIES TO REDUCE UNCERTAINTIES IN EVALU HSCT AIR-
 CRAFT EFFECTS ON THE GLOBAL ATMOSPHERE"
 05/06/1997 - 04/30/2000 FY99: \$40,163 Total: \$162,681
Prin. Invest.: D J WUEBBLES
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4500 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4490
 CELLULAR EVOLUTION & THE STRUCTURE OF THE ARCHAEAL
 05/06/1997 - 12/31/1998 FY99: \$26,774 Total: \$297,304
Prin. Invest.: D R WOESE
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4793 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4491
 ROSAT HRI IMAGE OF THE EXTREMELY METAL-DEFICIENT D ROSAT HRI
 IMAGE OF BARRED GALAXIES.
 06/19/1997 - 06/30/1998 FY99: -\$2,786 Total: \$2,114
Prin. Invest.: D BOMANS
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4858 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4492
 REMOTE SENSING OF CANOPY PROPERTIES FOR A FOREST U CO2
 ENRICHMENT
 07/08/1997 - 09/30/1999 FY99: \$0 Total: \$214,385
Prin. Invest.: D DELUCIA
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4863 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4493
 HRI SURVEY OF THE LARGE MAGNELLANIC CLOUD
 06/17/1997 - 03/30/1999 FY99: \$0 Total: \$14,099
Prin. Invest.: Y CHU
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 5087 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4494
 INTERFEROMETRIC RADAR OBSERVATIONS OF MID-LATITUDE SPORAD-
 IC-E ECHOES
 06/25/1996 - 02/29/2000 FY99: \$79,000 Total: \$249,000
Prin. Invest.: F KUDEKI
Tech. Officer: GSFC/L W GURKIN
CASE Category: 13 - PHYSICS

NAG 5 5241 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4495
 A SOUNDING ROCKET INVESTIGATION PI DR. C GARDNER
 02/12/1999 - 02/29/2000 FY99: \$9,094 Total: \$9,094
Prin. Invest.: C GARDNER
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6723 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4496
 SUPPORT FOR LARGE DATA SET IN EOSDIS
 12/12/1997 - 06/30/1999 FY99: \$0 Total: \$282,600
Prin. Invest.: M FOLK
Tech. Officer: GSFC/R KREIDER
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 6781 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4497
 ILLINOIS CENTER FOR AGRICULTURAL GEOGRAPHIC EXCELL ENCE
 (ILCAGE)
 01/15/1998 - 01/14/1999 FY99: -\$145 Total: \$99,855
Prin. Invest.: M HIRSCH
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6836 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4498
 ATMOSPHERIC FORCING OF GREENLAND ICE SHEET
 01/08/1998 - 12/31/1999 FY99: \$100,020 Total: \$195,685
Prin. Invest.: J WALSH
Tech. Officer: GSFC/S GOGINENI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7003 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4499
 ENERGETICS OF SUPERNOVA REMNANTS
 02/09/1998 - 01/31/2000 FY99: \$77,900 Total: \$140,900
Prin. Invest.: Y CHU
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7152 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4500
 ROTATING AND BINARY NEUTRON STARS IN GENERAL RELATIVITY - ATP
 03/05/1998 - 03/14/1999 FY99: \$0 Total: \$55,000
Prin. Invest.: S L SHAPIRO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7170 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4501
 CHARACTERIZING MULTISCALE INTERACTION OF HYDROLOGI C PRO-
 CESSSES USING MULTISENSOR SATELLITE DATA
 03/30/1998 - 12/31/1999 FY99: \$0 Total: \$113,658
Prin. Invest.: P KUMAR
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7404 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4502
 MODELLING X-RAY CLUSTERS: EVOLUTION AND REALISTIC PHYSICS
 05/15/1998 - 05/31/2001 FY99: \$19,243 Total: \$51,460
Prin. Invest.: M L NORMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7692 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4503
 HIGH-POWER DOUBLE-CLAD FIBERS FOR WATER VAPOR SENSING.
 09/18/1998 - 09/30/1999 FY99: \$0 Total: \$15,000
Prin. Invest.: G PAPPEN
Tech. Officer: GSFC/M KRAINAK
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 8103 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4504
 ORIGIN OF X-RAY EMISSION FROM PLANETARY NEBULAE-AD P 98
 02/05/1999 - 01/31/2000 FY99: \$32,000 Total: \$32,000
Prin. Invest.: Y CHU
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8104 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4505
 ORIGIN OF X-RAY EMISSION FROM PLANETARY NEBULAE-AD P 98
 02/05/1999 - 01/31/2000 FY99: \$39,000 Total: \$39,000
Prin. Invest.: U CHU
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8221 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4506
 "REDUCING UNCERTAINTIES IN UNDERSTANDING THE POTENTIAL
 EFFECTS OF HSCAIRCRAFT ON THE GLOBAL ATMOSPHERE
 02/10/1999 - 02/14/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: D J WUEBBLES
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8418 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4507
 SUPERNOVA FALLBACK AND THE EMERGENCE OF BLACK HOLES AND
 NEUTRON STARS (ATP 98)
 03/25/1999 - 04/30/2001 FY99: \$108,000 Total: \$108,000
Prin. Invest.: S L SHAPIRO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8424 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4508
 X-RAY SPECTRA AND VARIABILITY OF ACCRETING NEUTRON STARS-
 ATP- 98
 04/15/1999 - 04/14/2000 FY99: \$96,100 Total: \$96,100
Prin. Invest.: F K LAMB
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8479 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4509
 EARLY EVOLUTION: THE UNIVERSAL ANCESTOR AND ORIGIN OF MODERN
 CELL
 05/04/1999 - 04/30/2000 FY99: \$170,000 Total: \$170,000
Prin. Invest.: C WOESE
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 8514 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4510
 ISAIA: INTEROPERABLE SYSTEMS FOR ARCHIVAL INFORMATION ACCESS
 06/10/1999 - 05/31/2000 FY99: \$39,996 Total: \$39,996
Prin. Invest.: R PLANTE
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 8521 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4511
 RADIO INTERFEROMETRIC STUDIES OF COMETS & ASTEROIDS
 06/25/1999 - 06/30/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: L SYNDER
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 8555 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4512
 MULTISCALE ESTIMATION, ERROR PROPAGATION AND SCALE EFFECTS IN
 THE DYNAMICAL RESPONSE OF SOIL-MOISTURE
 06/21/1999 - 06/30/2000 FY99: \$43,677 Total: \$43,677
Prin. Invest.: P KUMAR
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8569 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4513
 THE WAVES EXPLORER
 05/25/1999 - 05/31/2000 FY99: \$467,795 Total: \$467,795
Prin. Invest.: G R SWENSON
Tech. Officer: GSFC/M MELLOTT
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8740 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4514
 SIMULATION OF TURBULENT MIXING AND PROPAGATION OF NUCLEAR
 BURNING IN THE SURFACE LAYERS OF ACCRETING
 08/12/1999 - 07/30/2000 FY99: \$24,000 Total: \$24,000
Prin. Invest.: F LAMB
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8781 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4515
 INTEGRATED BIOMIMETIC SENSORS USING ARTIFICIAL HAIR CELLS
 08/27/1999 - 08/31/2000 FY99: \$34,750 Total: \$34,750
Prin. Invest.: C LIU
Tech. Officer: GSFC/R CROUCH
CASE Category: 99 - MULTIDISCIPL, OTHER

NAG 8 1249 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4516
 ADAPTIVE GRID METHODS FOR PHASE FIELD MODELS OF MICROSTRUCTURE
 DEVELOPMENT
 04/16/1996 - 04/15/2000 FY99: \$161,917 Total: \$437,917
Prin. Invest.: J A DANTZIG
Tech. Officer: MSFC/P DOTY, MSFC/R POWER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1376 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4517
 R/S "PARTICLE INTERACTION POTENTIALS & PROTEIN CRYSTAL QUALITY
 UNDER DR. CHARLES F. ZUKOSKI."
 07/01/1997 - 11/30/2000 FY99: \$125,000 Total: \$321,000
Prin. Invest.: C F ZOKOSKI
Tech. Officer: MSFC/J R ROGERS, MSFC/J P DOWNEY
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1453 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4518
 MODELS OF MAGNETIC DAMPING FOR BRIDGMAN SEMI-CONDUCTOR
 CRYSTAL GROWTH
 05/20/1998 - 01/31/2002 FY99: \$96,666 Total: \$163,333
Prin. Invest.: J S WALKER
Tech. Officer: MSFC/C TALLEY
CASE Category: 13 - PHYSICS

NAG 8 1471 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4519
 COLLOIDAL STABILITY IN COMPLEX FLUIDS
 04/23/1998 - 01/31/2002 FY99: \$98,000 Total: \$171,333
Prin. Invest.: J A LEWIS
Tech. Officer: MSFC/P M DOTY
CASE Category: 13 - PHYSICS

NAGW 5247 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4520
 CHARACTERIZING MULTISCALE INTERACTION OF HYDROLOGIC PROCESSES USING MULTISENSOR SATELLITE DATA
 10/18/1996 - 06/30/1998 FY99: \$0 Total: \$141,095
Prin. Invest.: P LUMAR
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 1 19950 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4521
 SCIENCE SUPPORT TO THE LITE SCIENCE TEAM
 05/19/1993 - 11/18/1999 FY99: \$0 Total: \$291,137
Prin. Invest.: C S GARDNER
Tech. Officer: LARC/G L MADDREA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 3 97011 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4522
 NRA SWITCH FROM GRANT TO CONTRACT-SIMULATION OF ICING CLOUDS ON TEST MODELS
 02/25/1997 - 08/01/2000 FY99: \$33,976 Total: \$119,044
Prin. Invest.: E LOTH
Tech. Officer: GRC/T B IRVINE
CASE Category: 41 - AERONAUTICAL ENGR

NCA 3 110 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4523
 JOINT SPONSORED RESEARCH AGREEMENT ICING RESEARCH
 02/22/1996 - 10/01/1999 FY99: \$4,000 Total: \$209,800
Prin. Invest.: M BRAGG
Tech. Officer: GRC/T H BOND
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 309 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4524
 EVAL PEM-TROPICS B OBSERVAT: UNCERTAIN ANALYSES & EFFECTS ON DEEP CONVECTIVE MIX'G ON TROPOSPH CHEM
 07/22/1998 - 07/31/2001 FY99: \$23,000 Total: \$76,000
Prin. Invest.: R KOTAMARTHL, DWUEBBLES
Tech. Officer: LARC/J MHOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5126 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4525
 MODELING OF DUCTILE CRACK GROWTH IN THREE-DIMENSIONS INCLUDING THERMALLOAD EFFECTS
 04/14/1995 - 09/30/1997 FY99: \$0 Total: \$79,863
Prin. Invest.: R H DODDS, JR.
Tech. Officer: ARC/R HAMPTON
CASE Category: 44 - CIVIL ENGR

NCC 3 509 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4526
 THE EFFECT OF THE CRITICAL ICE ACCRETION ON AIRFOIL & WING PERFORMANCE
 10/25/1996 - 10/24/2000 FY99: \$40,189 Total: \$144,574
Prin. Invest.: M S SELIG, M B BRAGG
Tech. Officer: GRC/H E ADDY, JR.
CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 153 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4527
 GRAND CHALLENGE RESEARCH
 08/30/1996 - 12/31/1999 FY99: \$152,000 Total: \$1,350,000
Prin. Invest.: P SAYLOR
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 8 90 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4528
 RESEARCH "MODELS OF MAGNETIC DAMPING FOR SEMICONDUCTOR CRYSTAL GROWTH IN MICROGRAVITY"
 04/22/1996 - 10/31/1999 FY99: \$0 Total: \$200,000
Prin. Invest.: J S WALKER
Tech. Officer: MSFC/C R TALLEY, MSFC/R W ALLEN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 2 52229 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4529
 OPTIMUM FORMULATIONS FOR LES
 08/18/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: R D MOSER
Tech. Officer: ARC/A A WRAY
CASE Category: 46 - MECHANICAL ENGR

NGT 2 52231 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4530
 ADAPTIVE DYNAMIC SCHEDULING OF WIDE AREA COMPUTATIONS BASED ON ROBUST ACQUISITION OF DISTRIBUTED...
 08/28/1997 - 07/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: D A REED
Tech. Officer: ARC/K G STEVENS, ARC/C H SCHULBACH
CASE Category: 22 - COMPUTER SCIENCE

NGT 2 52244 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4531
 NON-LINEAR ALFVEN WAVES, AMBIPOLAR DIFFUSION & STARR FORMATION
 08/05/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: T MOUSCHOVIAS
Tech. Officer: ARC/A BARNES
CASE Category: 11 - ASTRONOMY

NGT 3 52308 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4532
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/25/1995 - 09/30/1998 FY99: -\$452 Total: \$65,548
Prin. Invest.: M B BRAGG
Tech. Officer: GRC/L SHAW
CASE Category: 46 - MECHANICAL ENGR

NGT 3 52345 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4533
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/28/1998 - 08/20/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J S MOORE
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 43 - CHEMICAL ENGR

NGT 3 52357 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4534
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM
 07/15/1999 - 09/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: M BRAGGS
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 14 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4535
 NARROW-BAND SURFACE PHOTOMETRY OF GALAXIES
 07/15/1996 - 06/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: L A THOMPSON
Tech. Officer: GSFC/G A SOFFEN, GSFC/B WOODGATE
CASE Category: 11 - ASTRONOMY

NGT 5 73 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4536
 CONTINUATION OF GSRP GRANT ON "HIGH POWER DIAL LID AR FOR THE
 REMOTE SENSING OF WATER VAPOR ON E
 06/05/1998 - 07/14/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: G C PAPER
Tech. Officer: GSFC/G A SOFFEN
CASE Category: 45 - ELECTRICAL ENGR

NGT 5 84 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4537
 NEW GRANT FOR GSRP STUDENT - DANIEL BULLOK
 05/18/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: P SAYLOR
Tech. Officer: GSFC/G A SOFFEN
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 30041 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4538
 CHARACTERIZING CLIMATIC SIGNATURES IN HYDRO-GEOMOR
 10/17/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: P KUMAR
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40030 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4539
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 12/19/1996 - 01/31/2000 FY99: \$475,000 Total: \$1,354,881
Prin. Invest.: W C SOLOMON
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50034 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4540
 N-DIMENSIONAL QUADRATICALLY NONLINEAR CONTROL-ORIE RFACE
 FLOWS, CONSTRUCTED USING M
 08/04/1997 - 06/30/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: A PEARLSTEIN
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50149 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4541
 THEORY AND INTERPRETATION OF MASERS IN DISKS FOR S GSRP RECIPI-
 ENT: WALLIN BRADLEY
 09/10/1997 - 06/30/1998 FY99: -\$11,422 Total: \$10,578
Prin. Invest.: D W WATSON
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50228 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4542
 SOFTWARE-IMPLEMENTED ADAPTIVE FAULT TOLERANCE THRO UGH
 DYNAMICALLY RECONFIGURABLE AGENTS
 10/29/1998 - 08/31/2000 FY99: \$44,000 Total: \$44,000
Prin. Invest.: R K IYER
Tech. Officer: HQ/S MCGEE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50238 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4543
 CAPILLARY ELECTROKINETIC TRANSPORT FOR CONVEYING SAMPLE TO
 ANALYTICAL INSTRUMENTATION: DESIGN, DEV
 05/28/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: A SCHEELINE
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52827 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4544
 GRAD STUDENT RESEARCH PROGRAM FOR TIMOTHY MORTHAND
 09/20/1996 - 06/30/1999 FY99: -\$9,288 Total: \$34,712
Prin. Invest.: T E MORTHAND
Tech. Officer: MSFC/F SZOFRA
CASE Category: 41 - AERONAUTICAL ENGR

NGT 9 33 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4545
 TRAINING GRANT
 06/04/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: S R WHITE
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 8 1207 WESTERN ILLINOIS UNIVERSITY 4546
 JOVE
 09/25/1995 - 05/31/1999 FY99: \$0 Total: \$30,504
Prin. Invest.: L H TICHENOR
Tech. Officer: MSFC/D SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1611 WESTERN ILLINOIS UNIVERSITY 4547
 R/S CONSTRUCTING THE COMPRE MODEL: A COST GROWTH APPROACH
 05/13/1999 - 05/13/2000 FY99: \$18,440 Total: \$18,440
Prin. Invest.: T LEE
Tech. Officer: MSFC/L D THOMAS
CASE Category: 21 - MATHEMATICS

INDIANA

NAG13 34 INDIANA STATE UNIVERSITY 4548
 REMOTE SENSING TECHNOLOGY TRANSFER TO GRADES K-12 WITH A
 FOCUS ON PREPARATION FOR SSTP INITIATIVE
 09/22/1995 - 11/24/1998 FY99: \$0 Total: \$547,896
Prin. Invest.: P MAUSEL
Tech. Officer: SSC/B DAVIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 2207 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4549
 LOW-EMISSION SELF-COOLED COMBUSTION WAVE ROTOR LOW-EMIS-
 SION SELF-COOLED COMBUSTION WAVE ROTOR
 11/13/1998 - 11/06/2000 FY99: \$53,078 Total: \$53,078
Prin. Invest.: R NALIM
Tech. Officer: GRC/D E PAXON
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2260 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4550
 IMPLEMENTATION OF LOAD BALANCING TECHNIQUES FOR PA RALLEL
 COMPUTATIONS WITH DISTRIBUTED SYSTEMS
 04/20/1999 - 04/06/2000 FY99: \$70,000 Total: \$70,000
Prin. Invest.: A ECER
Tech. Officer: GRC/T BABRAUCKAS
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4917 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4551
 MODULATION OF BONE REMODELING VIA MECHANICALLY-ACT
 07/18/1997 - 11/15/1998 FY99: -\$6,262 Total: \$112,622
Prin. Invest.: D DUNCAN
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1586 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4552
 SELF RENEWAL REPLICATION OF HEMATOPOIETIC STEM CELLS IN
 MICROGRAVITY
 02/03/1999 - 11/30/2002 FY99: \$130,000 Total: \$130,000
Prin. Invest.: C M TRAYCOFF
Tech. Officer: MSFC/B GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 50203 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4553
 PARATHYROID HORMONE MODULATES THE RESPONSE OF OSTE OBLAST-
 LIKE CELLS TO MECHANICAL STIMULATION
 07/01/1998 - 06/30/2001 FY99: \$20,000 Total: \$39,600
Prin. Invest.: R L DUCN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 2781 INDIANA UNIVERSITY - BLOOMINGTON 4554
 SIMULATIONS OF GLOBULAR CLUSTER, GALACTIC NUCLEUS, AND GAL-
 AXY CLUSTER DYNAMICAL EVOLUTION
 11/07/1994 - 01/14/1999 FY99: \$0 Total: \$282,800
Prin. Invest.: H N COHN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3413 INDIANA UNIVERSITY - BLOOMINGTON 4555
 ACCRETION MONITORING DURING THE SUPERCYCLE OF V1115 9 ORI.
 09/15/1996 - 03/14/1998 FY99: -\$26 Total: \$5,701
Prin. Invest.: R HONEYCUTT
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4295 INDIANA UNIVERSITY - BLOOMINGTON 4556
 3D SIMULATIONS OF GRAVITATIONAL INSTABILITIES IN P PROTOSTELLAR
 DISKS
 04/04/1997 - 06/30/2000 FY99: \$50,000 Total: \$85,000
Prin. Invest.: D H DURISEN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4342 INDIANA UNIVERSITY - BLOOMINGTON 4557
 SIMULATIONS OF BALLISTIC TRANSPORT IN SATURN'S RIN
 04/21/1997 - 04/30/1999 FY99: \$0 Total: \$51,994
Prin. Invest.: D H DURISEN
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4409 INDIANA UNIVERSITY - BLOOMINGTON 4558
 ACCRETION GEOMETRY AND EMISSION SITES IN THE ECLIP OBJECTS
 05/12/1997 - 05/14/1999 FY99: \$0 Total: \$30,877
Prin. Invest.: T STEIMAN-CAMERON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4618 INDIANA UNIVERSITY - BLOOMINGTON 4559
 PETROLOGIC EVOLUTION OF LUNAR AND METEORITE PARENT
 05/19/1997 - 02/29/2000 FY99: \$30,000 Total: \$90,000
Prin. Invest.: D BASU
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 5058 INDIANA UNIVERSITY - BLOOMINGTON 4560
 HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) FUNDING FOR THE FIRST
 YEAR OF RESEARCH
 05/01/1996 - 02/28/1999 FY99: \$0 Total: \$464,000
Prin. Invest.: J MUSSER
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5167 INDIANA UNIVERSITY - BLOOMINGTON 4561
 GPS MEASUREMENTS OF LOCALIZED DEFORMATION IN THE T
 07/17/1997 - 07/14/2000 FY99: \$10,000 Total: \$66,000
Prin. Invest.: M W HAMBURGER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 5194 INDIANA UNIVERSITY - BLOOMINGTON 4562
 TECHNOLOGY DEVELOPMENT FOR HIGH-RESOLUTION GAMMA- RAY
 SPECTROSCOPY
 05/19/1998 - 04/30/2000 FY99: \$0 Total: \$50,000
Prin. Invest.: R E PEHL
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5224 INDIANA UNIVERSITY - BLOOMINGTON 4563
 HEAT HIGH ENERGY ANTIMATTER TELESCOPE PI PROF. JAMES MUSSER
 02/03/1999 - 01/31/2000 FY99: \$168,000 Total: \$168,000
Prin. Invest.: J MUSSER
Tech. Officer: WFF/B MERRIT
CASE Category: 11 - ASTRONOMY

NAG 5 6406 INDIANA UNIVERSITY - BLOOMINGTON 4564
 XTE OBSERVATIONS OF INTERMEDIATE POLARS
 10/10/1997 - 04/14/1999 FY99: \$0 Total: \$7,526
Prin. Invest.: K HONEYCUTT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 6702 INDIANA UNIVERSITY - BLOOMINGTON 4565
 CENTER OF EXCELLENCE IN APPLICATIONS OF REMOTE SEN SING TO
 REGIONAL AND GLOBAL INTEGRATED ENVIRONME
 12/16/1997 - 10/31/1998 FY99: \$0 Total: \$332,180
Prin. Invest.: J RANDOLPH
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI,OTHER

NAG 5 6773 INDIANA UNIVERSITY - BLOOMINGTON 4566
 COBE AND THE STRUCTURE OF THE GALACTIC INTERSTELLA R MEDIUM
 01/22/1998 - 01/31/2000 FY99: \$41,800 Total: \$81,900
Prin. Invest.: STEIMAN-CAMERON
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6884 **INDIANA UNIVERSITY - BLOOMINGTON** **4567**
 MONITORING THE ACCRETION OF TWO OLD NOVAE
 02/06/1998 - 01/31/2000 FY99: \$0 Total: \$10,000
Prin. Invest.: K HONEYCUTT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7491 **INDIANA UNIVERSITY - BLOOMINGTON** **4568**
 XTE PROPOSAL (30011) - COORDINATED X-RAY/OPTICAL OBSERVATIONS OF ECLIPSING AM HERCULIS OBJECT
 06/29/1998 - 06/30/2000 FY99: \$0 Total: \$10,234
Prin. Invest.: T STEIMAN-CAMERON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7514 **INDIANA UNIVERSITY - BLOOMINGTON** **4569**
 SIMULATIONS OF INSTABILITIES IN PROTOSTELLAR DISKS AND OTHER STARFORMATION STUDIES
 05/29/1998 - 06/30/1999 FY99: \$30,000 Total: \$45,000
Prin. Invest.: D DURISEN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7619 **INDIANA UNIVERSITY - BLOOMINGTON** **4570**
 FUNDING FOR "LITHOSPHERIC RHEOLOGY AND GEODYNAMIC PROCESSES FROM INTEGRATION OF GEODETIC, GRAVITY AND
 07/24/1998 - 02/29/2000 FY99: \$50,000 Total: \$75,000
Prin. Invest.: M W HAMBURGER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 8582 **INDIANA UNIVERSITY - BLOOMINGTON** **4571**
 GPS MEASUREMENT OF CRUSTAL DEFORMATION AT TAAL VOLCANO, PHILLIPPINES
 06/08/1999 - 06/14/2000 FY99: \$20,000 Total: \$20,000
Prin. Invest.: M W HAMBURGER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 9 98121 **INDIANA UNIVERSITY - BLOOMINGTON** **4572**
 RADIATION TESTING & ANALYTICAL SUPPORT SERVICES
 09/03/1998 - 09/03/1999 FY99: \$119,900 Total: \$119,900
Prin. Invest.: C FOSTER
Tech. Officer: JSC/W CULPEPPER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 2 870 **INDIANA UNIVERSITY - BLOOMINGTON** **4573**
 SPACEFLIGHT EFFECTS ON MAMMALIAN DEVELOPMENT
 07/11/1994 - 05/31/1998 FY99: -\$4,532 Total: \$714,181
Prin. Invest.: J R ALBERTS, A RONCA
Tech. Officer: ARC/D A REISS-BUBENHIEM, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 1028 **INDIANA UNIVERSITY - BLOOMINGTON** **4574**
 EVOLUTION OF GRAVITATIONALLY UNSTABLE PROTOSTELLAR DISKS
 02/27/1998 - 02/29/2000 FY99: \$0 Total: \$29,878
Prin. Invest.: T Y STEIMAN-CAMERON, NONE
Tech. Officer: ARC/P M CASSEN
CASE Category: 11 - ASTRONOMY

NCC 2 1035 **INDIANA UNIVERSITY - BLOOMINGTON** **4575**
 CASE-BASED CAPTURE & REUSE OF AEROSPACE DESIGN RATIONALE
 05/07/1998 - 05/14/2000 FY99: \$153,413 Total: \$300,092
Prin. Invest.: D B LEAKE
Tech. Officer: ARC/M E LIVINGSTON, ARC/W VAN DALSEM
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 334 **INDIANA UNIVERSITY - BLOOMINGTON** **4576**
 HUMAN AND PHYSICAL DIMENSIONS OF LAND USE/COVER CHANGE IN ANAZONIA: FOREST REGENERATION AND LANDSCAPE
 06/16/1998 - 12/31/1999 FY99: \$89,857 Total: \$258,114
Prin. Invest.: E MORAN
Tech. Officer: GSFC/D DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50162 **INDIANA UNIVERSITY - BLOOMINGTON** **4577**
 STUDY OF THE DIFFERENCES BETWEEN THE RADIATION DAMAGE DETECTORS FABRICATED FROM N- AND P-TYPE GERMANIUM
 09/17/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: V E VIOLA
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTIDISCIPL, OTHER

NAG 5 2612 **INDIANA UNIVERSITY - SOUTH BEND** **4578**
 MONITORING THE MOST MASSIVE STARS 2) MAGNETICALLY CONTROLLED CIRCUMSTELLAR MATTER AMONG
 06/13/1994 - 12/31/1997 FY99: -\$72 Total: \$47,228
Prin. Invest.: S N SHORE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NCC 3 317 **MANCHESTER COLLEGE** **4579**
 INTERCALATION OF GRAPHITE FIBERS FOR SPACE POWER APPLICATIONS
 09/01/1993 - 02/13/1998 FY99: \$0 Total: \$106,218
Prin. Invest.: E G MILLER
Tech. Officer: GRC/C HUNG
CASE Category: 12 - CHEMISTRY

NCC 3 601 **MANCHESTER COLLEGE** **4580**
 INTERCALATION OF GRAPHITE FIBERS FOR SPACE POWER APPLICATIONS
 03/12/1998 - 12/23/1999 FY99: \$11,868 Total: \$21,873
Prin. Invest.: G W CLARK
Tech. Officer: GRC/C HUNG
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1749 **PURDUE UNIVERSITY** **4581**
 APPLICATION OF THE SPECTRAL ELEMENT METHOD TO INTERIOR NOISE PROBLEMS
 08/11/1995 - 06/30/1998 FY99: -\$14 Total: \$52,014
Prin. Invest.: J F DOYLE
Tech. Officer: LARC/S A RIZZI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1794 **PURDUE UNIVERSITY** **4582**
 BOUNDARY-LAYER TRANSITION DETECTION IN CRYOGENIC WIND TUNNELS USING FLUORESCENT PAINT
 01/23/1996 - 01/31/1999 FY99: -\$242 Total: \$153,758
Prin. Invest.: J P SULLIVAN
Tech. Officer: LARC/B T UPCHURCH, LARC/M MITCHELL
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2109 **PURDUE UNIVERSITY** **4583**
 LASER SPOT HEATING SYSTEM FOR TRANSITION DETECTION IN CRYOGENIC WIND TUNNELS
 09/14/1998 - 06/30/2000 FY99: \$75,000 Total: \$100,000
Prin. Invest.: J P SULLIVAN
Tech. Officer: LARC/B T UPCHURCH, LARC/C J OBARA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2119 **PURDUE UNIVERSITY** **4584**
 GENETIC ALGORITHM APPROACHES FOR ACTUATOR PLACEMENT
 12/09/1998 - 12/31/1999 FY99: \$20,581 Total: \$20,581
Prin. Invest.: W A CROSSLEY
Tech. Officer: LARC/S L PADULA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1001 **PURDUE UNIVERSITY** **4585**
 HYPOGRAVITY'S EFFECT ON THE LIFE CYCLE OF JAPANESE QUAIL
 08/23/1998 - 06/30/1999 FY99: -\$2 Total: \$116,281
Prin. Invest.: P Y HESTER
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1344 **PURDUE UNIVERSITY** **4586**
 A GRAVIRESPONSIVE TIME-KEEPING PROTEIN OF THE PLANT & ANIMAL CELL SURFACE
 07/21/1999 - 12/31/1999 FY99: \$72,046 Total: \$72,046
Prin. Invest.: D J MORRE
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1291 **PURDUE UNIVERSITY** **4587**
 SUPPORT OF THE 10TH NATIONAL SYMPOSIUM OF AIR BREATHING ENGINES
 07/31/1991 - 09/30/1998 FY99: \$0 Total: \$26,992
Prin. Invest.: S N MURTHY
Tech. Officer: GRC/D N BOWDITCH
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1730 **PURDUE UNIVERSITY** **4588**
 3-D UNSTEADY AERODYNAMICS AND AEROELASTICITY OF ADVANCED TURBOPROPS
 02/01/1995 - 03/06/1999 FY99: \$74,087 Total: \$419,033
Prin. Invest.: S FLEETER
Tech. Officer: GRC/D H BUFFUM
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1766 **PURDUE UNIVERSITY** **4589**
 HIGH REYNOLDS NUMBER EXPERIMENTS ON BYPASS DUCT AND STRICT FLOWS
 07/14/1995 - 10/31/1999 FY99: \$0 Total: \$288,441
Prin. Invest.: S H COLLICOTT, J P SULLIVAN
Tech. Officer: GRC/K J KACYSKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1782 **PURDUE UNIVERSITY** **4590**
 INVESTIGATION OF NITRIC OXIDE PRODUCTION IN HIGH-PRESSURE COUNTERFLOW DIFFUSION FLAMES BY LASER-IND
 08/23/1995 - 08/31/1999 FY99: \$0 Total: \$200,000
Prin. Invest.: N M LAURENDEAU
Tech. Officer: GRC/Y R HICKS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1814 **PURDUE UNIVERSITY** **4591**
 PRESSURE AND TEMPERATURE MEASUREMENT OF ROTATING MACHINERY USING FLUORESCENT PAINTS
 04/16/1996 - 10/15/1999 FY99: \$30,000 Total: \$225,000
Prin. Invest.: J P SULLIVAN
Tech. Officer: GRC/M P WERNET
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1860 **PURDUE UNIVERSITY** **4592**
 FORCED OSCILLATIONS OF PENDANT AND SESSILE DROPS
 06/03/1996 - 06/02/2000 FY99: \$70,000 Total: \$251,000
Prin. Invest.: D A BASARAN
Tech. Officer: GRC/J S LING, GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1898 **PURDUE UNIVERSITY** **4593**
 PARALLEL IMPLEMENTATION OF CONSTRAINED OPTIMIZATION TECHNOLOGY ON WORKSTATIONS WITH APPLICATION TO
 09/05/1996 - 09/04/1999 FY99: \$0 Total: \$15,000
Prin. Invest.: S S RAO
Tech. Officer: GRC/D R REDDY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2080 **PURDUE UNIVERSITY** **4594**
 AEROSPACE STRUCTURAL METALS HANDBOOK
 10/28/1997 - 09/30/1999 FY99: \$6,001 Total: \$51,922
Prin. Invest.: H MINDLIN
Tech. Officer: GRC/J R REAGAN
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2095 **PURDUE UNIVERSITY** **4595**
 ON THE DEVELOPMENT OF SUPERSONIC JET NOISE PREDICTION METHODOLOGY
 12/22/1997 - 11/24/2000 FY99: \$34,714 Total: \$68,105
Prin. Invest.: A S LYRINTZIS
Tech. Officer: GRC/J R SCOTT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2107 **PURDUE UNIVERSITY** **4596**
 SCRAMJET SCALING BASED ON ENERGY ANALYSIS SCRAMJET SCALING BASED ON ENERGY ANALYSIS
 01/28/1998 - 12/04/1998 FY99: \$0 Total: \$52,609
Prin. Invest.: S B MUTHY
Tech. Officer: GRC/S R THOMAS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2169 **PURDUE UNIVERSITY** **4597**
 FORCED RESPONSE PREDICTIONS OF TURBOMACHINERY BLADE ROWS
 05/29/1998 - 08/01/2000 FY99: \$25,241 Total: \$45,241
Prin. Invest.: S FLEETER
Tech. Officer: GRC/D C JANETZKE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2217 **PURDUE UNIVERSITY** **4598**
 SCRAMJET SCALING AND INTERACTIONS TESTING SCRAMJET SCALING AND INTERACTIONS TESTING
 12/15/1998 - 12/07/1999 FY99: \$91,867 Total: \$91,867
Prin. Invest.: S MURTHY
Tech. Officer: GRC/S R THOMAS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2246 **PURDUE UNIVERSITY** **4599**
 THE 14TH SYMPOSIUM ON AIR BREATHING ENGINES THE 14TH SYMPOSIUM ON AIR BREATHING ENGINES
 03/22/1999 - 09/30/2000 FY99: \$5,100 Total: \$5,100
Prin. Invest.: S MURTHY
Tech. Officer: GRC/M THARP
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2251 **PURDUE UNIVERSITY** **4600**
 INVESTIGATION OF NITRIC OXIDE PRODUCTION IN HIGH-P RESSURE COUNTERFLOW DIFFUSION FLAMES BY LASER-IND
 03/31/1999 - 09/05/1999 FY99: \$30,000 Total: \$30,000
Prin. Invest.: N M LAURENDEAU
Tech. Officer: GRC/Y HICKS
CASE Category: 46 - MECHANICAL ENGR

NAG 5 3118 **PURDUE UNIVERSITY** **4601**
 GEOPHYSICAL CHARACTERIZATION OF SOME TERRANES AND THE GEO-PHYSICAL MODELING OF CANDIDATE SUTURE ZONES
 10/26/1995 - 04/30/1999 FY99: \$0 Total: \$58,886
Prin. Invest.: S KING
Tech. Officer: GSFC/R A LANGE, GSFC/P T TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3294 **PURDUE UNIVERSITY** **4602**
 4U 1223-62/4U 1907 + 09: SXRBS WITH PECULIAR X-RAY BEHAVIOR; A DETAILED STUDY OF THE CRAB'S TWIN..
 07/17/1996 - 01/31/1998 FY99: -\$7 Total: \$27,733
Prin. Invest.: J FINLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3426 **PURDUE UNIVERSITY** **4603**
 STRUCTURE IN THE DIFFUSE X-RAY BACKGROUND ALONG TH
 09/30/1996 - 09/30/1999 FY99: \$0 Total: \$44,297
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3589 **PURDUE UNIVERSITY** **4604**
 GAMMA RAY OBSERVATIONS OF PSR B1055-52 AND OTHER S
 02/11/1997 - 02/14/1998 FY99: -\$752 Total: \$1,528
Prin. Invest.: J FINLEY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3833 **PURDUE UNIVERSITY** **4605**
 THE ENIGMATIC CLOCK IN 2S 0114+65
 02/11/1997 - 02/14/1998 FY99: -\$16 Total: \$16,484
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3965 **PURDUE UNIVERSITY** **4606**
 STUDY ON APPLICATIONS OF SATELLITE DATA TO UNDERST SEA INTER-ACTIONS
 03/03/1997 - 07/31/2000 FY99: \$86,000 Total: \$266,112
Prin. Invest.: C A CLAYSON
Tech. Officer: GSFC/R KAKAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3975 **PURDUE UNIVERSITY** **4607**
 RESEARCH ON METHODS FOR ANALYSIS OF MULTI-SPECTRAL DATA
 02/26/1997 - 01/31/2000 FY99: \$181,572 Total: \$535,680
Prin. Invest.: D A LANGREBE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3992 **PURDUE UNIVERSITY** **4608**
 THE ANALYSIS AND PARAMETERIZATION OF SHORTWAVE RAD ATMOSPHERES
 02/26/1997 - 12/31/1999 FY99: \$80,000 Total: \$270,000
Prin. Invest.: D HARSHVARDHAN
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4304 **PURDUE UNIVERSITY** **4609**
 CHEMICAL STUDIES OF METEORITES
 04/14/1997 - 02/28/2001 FY99: \$110,333 Total: \$251,000
Prin. Invest.: D E LIPSCHUTZ
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4481 **PURDUE UNIVERSITY** **4610**
 INVESTIGATION OF THE HIGH ENERGY TAILS OF SOFT X-R COORDINATED OBSERVATIONS OF TEV BL LAC OBJECTS
 05/06/1997 - 04/30/1998 FY99: -\$5 Total: \$25,846
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4819 **PURDUE UNIVERSITY** **4611**
 LABORATORY STUDIES OF DIACETYLENE PHOTOCHEMISTRY:R ULES IN TITAN AND THE OUTER PLANETS' ATMOSPHERE
 06/17/1997 - 05/31/1999 FY99: \$49,583 Total: \$168,000
Prin. Invest.: D ZWIER
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6704 **PURDUE UNIVERSITY** **4612**
 LABORATORY FOR APPLICATIONS OF REMOTE SENSING: A CENTER OF EXCELLENCE IN REMOTE SENSING APPLICATIO
 12/04/1997 - 11/14/1998 FY99: \$0 Total: \$90,220
Prin. Invest.: C J JOHANNSEN
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6918 **PURDUE UNIVERSITY** **4613**
 XTE PROPOSAL - MAPPING THE ORBITS OF ECLIPSING HIG H MASS SYS-TEMS
 02/06/1998 - 01/31/2000 FY99: \$0 Total: \$17,038
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 6971 **PURDUE UNIVERSITY** **4614**
 MACHINE LEARNING TO IMPROVE LAND COVER CLASSIFICAT IONS FROM MULTISENSOR AND MULTITEMPORAL DATA
 03/12/1998 - 02/28/2001 FY99: \$27,016 Total: \$52,972
Prin. Invest.: C E BRODLEY
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7387 **PURDUE UNIVERSITY** **4615**
 A SEARCH FOR PULSATIONS IN HMXB SYSTEMS
 05/07/1998 - 05/31/2000 FY99: \$0 Total: \$9,167
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7388 **PURDUE UNIVERSITY** **4616**
 THE ORBITAL DECAY RTAE AND SYSTEM PARAMETERS OF 4U 1700-37
 05/07/1998 - 05/31/2000 FY99: \$0 Total: \$8,500
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7954 **PURDUE UNIVERSITY** **4617**
 INCREASING PUBLIC BENEFITS OF EXISTING NASA EARTH SCIENCES
 DATA: MULTI-PURPOSE APPLICATIONS IN AN
 12/31/1998 - 10/31/1999 FY99: \$100,000 Total: \$100,000
Prin. Invest.: B A ENGEL
Tech. Officer: GSFC/A TUYAHOV
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8155 **PURDUE UNIVERSITY** **4618**
 LABORATORY STUDIES OF DIACETYLENE AND CYANOACETYLENE PHOTOCHEMISTRY: ROUTES TO COMPLEX MOLECULES
 02/17/1999 - 05/31/2000 FY99: \$140,800 Total: \$140,800
Prin. Invest.: T ZWIER
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 8 1147 **PURDUE UNIVERSITY** **4619**
 BIOLOGICAL PARTICLE SEPARATION IN LOW GRAVITY
 08/03/1995 - 08/02/1999 FY99: \$0 Total: \$536,214
Prin. Invest.: J MORRE
Tech. Officer: MSFC/L KARR
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1233 **PURDUE UNIVERSITY** **4620**
 RESEARCH "DEVELOPMENT OF ATMOSPHERIC PHYSICAL RET. USING SATELLITE DATA FROM MICROWAVE SOUNDING, ETC
 12/04/1996 - 01/21/2000 FY99: \$47,285 Total: \$143,156
Prin. Invest.: G W PETTY
Tech. Officer: MSFC/B L APENTA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1515 **PURDUE UNIVERSITY** **4621**
 VARIABILITY AND PREDICTABILITY OF LAND-ATMOSPHERE INTERACTIONS: OBSERVATIONAL AND MODELING STUDIES
 05/15/1998 - 05/31/2001 FY99: \$56,010 Total: \$109,652
Prin. Invest.: R OGLESBY
Tech. Officer: MSFC/J ARNOLD
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3944 **PURDUE UNIVERSITY** **4622**
 PASSIVE MICROWAVE ALGORITHM DEVELOPMENT AND EVALUATION
 04/20/1994 - 03/31/1998 FY99: \$0 Total: \$261,918
Prin. Invest.: G W PETTY
Tech. Officer: HQ/J C DODGE, HQ/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG13 38 **PURDUE UNIVERSITY** **4623**
 EVALUATING REMOTELY SENSED DATA FOR AGRICULTURAL AND NATURAL RESOURCE APPLICATIONS
 08/16/1996 - 11/19/1999 FY99: \$282,378 Total: \$655,882
Prin. Invest.: C J JOHANNSEN
Tech. Officer: SSC/J JENNER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 5208 **PURDUE UNIVERSITY** **4624**
 PRESSURE AND TEMPERATURE SENSITIVE PAINT MEASUREMENTS ON ROTORS
 04/02/1997 - 04/30/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: J P SULLIVAN
Tech. Officer: ARC/C TUNG
CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 358 **PURDUE UNIVERSITY** **4625**
 DYNAMICAL SYSTEMS THEORY, NUMERICAL METHODS, OPTIMIZATION STRATEGIES & THEIR APPLICATION TO TRAJECTORY
 08/26/1998 - 07/31/2000 FY99: \$59,000 Total: \$159,189
Prin. Invest.: K C HOWELL
Tech. Officer: GSFC/D FOLTA
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 7 5 **PURDUE UNIVERSITY** **4626**
 APPLICATION OF DYNAMICAL SYSTEMS THEORY TO THE DESIGN AND DEVELOPMENT OF SPACECRAFT TRAJECTORIES
 08/19/1996 - 08/19/1998 FY99: \$0 Total: \$125,000
Prin. Invest.: D C HOWELL
Tech. Officer: NMO/K GALAL
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 1 52198 **PURDUE UNIVERSITY** **4627**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 07/08/1998 - 06/30/2000 FY99: \$22,000 Total: \$32,000
Prin. Invest.: G L ROTH
Tech. Officer: LARC/D W BARTLETT
CASE Category: 41 - AERONAUTICAL ENGR

NGT 2 52225 **PURDUE UNIVERSITY** **4628**
 TOPOLOGY DESIGN OF ROTOR BLADES FOR AERODYNAMICS & STRUCTURAL CONSIDERATIONS
 07/29/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: W A CROSSLEY
Tech. Officer: ARC/S R KOTTAPALLI
CASE Category: 41 - AERONAUTICAL ENGR

NGT 4 52400 **PURDUE UNIVERSITY** **4629**
 NEW H-2/H-INFINITY CONTROL SYNTHESIS FOR THE F-18 NEW AWARD
 06/30/1995 - 07/31/1998 FY99: \$18,350 Total: \$47,650
Prin. Invest.: A E FRAZHO
Tech. Officer: DFRC/K K GUPTA, DFRC/L VOELKER
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 28 **PURDUE UNIVERSITY** **4630**
 TRAJECTORY DESIGN STRATEGIES FOR LIBRAITON POINT MANIFESTATIONS THAT INCORPORATE INVARIANT MANIFOLDS
 07/13/1996 - 09/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: K C HOWELL
Tech. Officer: GSFC/G A SOFFEN, GSFC/J COOLEY
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 5 30040 PURDUE UNIVERSITY 4631
 EFFECT OF ANTHROPOGENIC AEROSOL ON CLOUD OPTICAL PROPERTIES: A CASE STUDY OF THE EASTERN U.S.
 10/17/1996 – 08/31/2000 FY99: \$0 Total: \$88,000
Prin. Invest.: D HARSHVARDHAN
Tech. Officer: GSFC/G ASRAR
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 5 30163 PURDUE UNIVERSITY 4632
 DEVELOPMENT, EVALUATION, AND APPLICATION OF A FAST TIME RESPONSE MASS SPECTROMETRIC METHOD FOR QU
 08/31/1998 – 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: P B SHEPSON, BARKET
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 40043 PURDUE UNIVERSITY 4633
 THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PR
 01/30/1997 – 02/28/2001 FY99: \$256,250 Total: \$717,500
Prin. Invest.: D ANDRISANI
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50110 PURDUE UNIVERSITY 4634
 GRADUATE STUDENT RESEARCHERS PROGRAM – STUDENT: R
 09/11/1997 – 08/14/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: J LONGUSKI
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50130 PURDUE UNIVERSITY 4635
 SEARCH FOR A SPECTROSCOPIC SIGNATURE OF TRIPLET ME
 09/10/1997 – 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: T ZWIER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 50222 PURDUE UNIVERSITY 4636
 MODELING MULTITHREADING ON MIMD COMPUTERS
 09/25/1998 – 08/31/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: L H JAMIESON, TEANY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 5184 TAYLOR UNIVERSITY 4637
 DROPPS: THE DISTRIBUTION AND ROLE OF PARTICLES IN THE POLAR SUMMER MESOSPHERE USING COORDINATED ROCK
 03/13/1998 – 11/30/1999 FY99: \$85,652 Total: \$135,669
Prin. Invest.: H D VOSS
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 – PHYSICS

NAG 5 8077 TAYLOR UNIVERSITY 4638
 SOURCE-LOSS/CONE INVESTIGATION
 01/20/1999 – 01/31/2000 FY99: \$69,994 Total: \$69,994
Prin. Invest.: H D VOSS
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 1 1561 UNIVERSITY OF NOTRE DAME 4639
 MULTIDISCIPLINARY DESIGN TECHNOLOGY DEVELOPMENT: A COMPARATIVE INVESTIGATION OF INTEGRATED AEROSPACE
 12/20/1993 – 09/30/1998 FY99: \$0 Total: \$664,411
Prin. Invest.: J E RENAUD, S M BATILL, J B BROCKMAN
Tech. Officer: LARC/J SORIESKI, LARC/L L GREEN
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1878 UNIVERSITY OF NOTRE DAME 4640
 WAKE DEVELOPMENT AND STRUCTURE IN ADVERSE PRESSURE GRADIENT
 11/15/1996 – 02/15/1998 FY99: -\$736 Total: \$51,297
Prin. Invest.: F O THOMAS, R C NELSON
Tech. Officer: LARC/J B ANDERS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1987 UNIVERSITY OF NOTRE DAME 4641
 WAKE DEVELOPMENT AND STRUCTURE IN ADVERSE PRESSURE GRADIENT
 01/05/1998 – 06/30/1999 FY99: \$1 Total: \$50,372
Prin. Invest.: F O THOMAS, R C NELSON
Tech. Officer: LARC/J B ANDERS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2032 UNIVERSITY OF NOTRE DAME 4642
 BUCKLING OF DAMAGED FLAT PANELS UNDER BIAXIAL LOADING
 03/17/1998 – 04/30/1999 FY99: -\$2,862 Total: \$21,898
Prin. Invest.: E CORONA
Tech. Officer: LARC/J H STARNES, LARC/R D YOUNG
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2179 UNIVERSITY OF NOTRE DAME 4643
 WAKE DEVELOPMENT AND STRUCTURE IN ADVERSE PRESSURE GRADIENT
 04/06/1999 – 01/04/2000 FY99: \$56,154 Total: \$56,154
Prin. Invest.: F O THOMAS, R C NELSON
Tech. Officer: LARC/J B ANDERS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2214 UNIVERSITY OF NOTRE DAME 4644
 COLLAPSE OF CRACKED RECTANGULAR PLATES UNDER BI-AXIAL LOADING
 07/21/1999 – 11/11/1999 FY99: \$21,216 Total: \$21,216
Prin. Invest.: E CORONA
Tech. Officer: LARC/J H STARNES, JR., LARC/R D YOUNG
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2240 UNIVERSITY OF NOTRE DAME 4645
 ADVANCED INFO TECHNOLOGY IN SIMULATION BASED LIFE CYCLE DESIGN UNDER UNCERTAINTY – NRA-98-LARC-8
 09/20/1999 – 09/30/2002 FY99: \$22,403 Total: \$22,403
Prin. Invest.: J E RENAUD
Tech. Officer: LARC/J L ROSEY
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 2213 UNIVERSITY OF NOTRE DAME 4646
 MECHANISTIC STUDIES OF COMBUSTION AND STRUCTURE FORMATION DURING SYNTHESIS OF ADVANCED MATERIALS
 01/15/1999 – 11/17/2002 FY99: \$82,500 Total: \$82,500
Prin. Invest.: A VARMA
Tech. Officer: GRC/R FRIEDMAN
CASE Category: 49 – ENGINEERING, OTHER

NAG 4 123 UNIVERSITY OF NOTRE DAME 4647
 A HIGH-LIFT FLOW PHYSICS EXPERIMENT USING THE NASA DRYDEN
 FLIGHT TEST FIXTURE
 04/14/1997 - 01/30/2000 FY99: \$34,713 Total: \$120,650
Prin. Invest.: R NELSON, F THOMAS
Tech. Officer: DFRC/D FISHER
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 557 UNIVERSITY OF NOTRE DAME 4648
 ERROR CONTROL TECHNIQUES FOR SATELLITE AND SPACE COMMUNIC-
 TIONS
 06/01/1985 - 07/31/1999 FY99: \$86,000 Total: \$781,020
Prin. Invest.: D COSTELLO
Tech. Officer: GSFC/W H MILLER, GSFC/J C MORAKIS
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 3818 UNIVERSITY OF NOTRE DAME 4649
 INSTABILITIES IN COALESCING NEUTRON STARS
 01/14/1997 - 01/14/1999 FY99: \$0 Total: \$30,000
Prin. Invest.: G J MATHEWS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 4017 UNIVERSITY OF NOTRE DAME 4650
 DEGREE SCALE COSMIC MICROWAVE BACKGROUND ANISOTROP
 DEFECTS
 02/26/1997 - 02/29/2000 FY99: \$0 Total: \$160,863
Prin. Invest.: D P BENNETT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4573 UNIVERSITY OF NOTRE DAME 4651
 DETECTION OF EXTRA-SOLAR PLANETS VIA GRAVITATIONAL
 09/05/1997 - 07/14/2000 FY99: \$85,417 Total: \$140,000
Prin. Invest.: D BENNETT
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8099 UNIVERSITY OF NOTRE DAME 4652
 GEOCHEMICAL EVOLUTION OF THE MOON
 02/03/1999 - 02/14/2000 FY99: \$40,000 Total: \$40,000
Prin. Invest.: D R NEAL
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8355 UNIVERSITY OF NOTRE DAME 4653
 ERROR CONTROL CODING TECHNIQUES FOR SPACE AND SATE LLITE
 COMMUNICATIONS; GSFC CONTROL #3453.
 03/18/1999 - 02/29/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: D J COSTELLO, JR. *Prin. Invest.:* NONE
Tech. Officer: GSFC/W H MILLER
CASE Category: 49 - ENGINEERING, OTHER

NCC 2 1014 UNIVERSITY OF NOTRE DAME 4654
 EXPERIMENTAL INVESTIGATION OF UNSTEADY ASPECTS OF HIGH FLOWS
 02/01/1998 - 10/31/1999 FY99: \$33,000 Total: \$88,217
Prin. Invest.: F O THOMAS, S OLSON, R C NELSON
Tech. Officer: ARC/J C ROSS, ARC/D SATRAN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 466 UNIVERSITY OF NOTRE DAME 4655
 FUNDAMENTAL PROCESSES OF ATOMIZATION IN FLUID-FLUI D FLOWS
 04/16/1996 - 04/15/2000 FY99: \$130,000 Total: \$487,994
Prin. Invest.: M J MCCREADY, H C CHANG, D T LEIGHTON
Tech. Officer: GRC/J B MCGUILLEN
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 1223 VALPARISO UNIVERSITY 4656
 ADP INFRARED STUDY OF TRANSITION LATE ASYMPTATIC GIANT
 07/27/1989 - 09/30/1999 FY99: \$0 Total: \$159,200
Prin. Invest.: B J HRIVNAK
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2645 VALPARISO UNIVERSITY 4657
 UV CHROMOSPHERIC ACTIVITY IN COOL, SHORT-PERIOD CO NTA CT BINA-
 RIES
 07/12/1994 - 08/31/2000 FY99: \$0 Total: \$7,300
Prin. Invest.: B J HRIVNAK
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3346 VALPARISO UNIVERSITY 4658
 ISO SPECTROSCOPY OF PROTO-PLANETARY NEBULAE
 08/12/1996 - 08/14/2000 FY99: \$0 Total: \$33,100
Prin. Invest.: B J HRIVNAK
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8490 VALPARISO UNIVERSITY 4659
 VALIDATION OF H2O & O3 MEASUREMENTS FROM SAGE III USING TRAJEC-
 TORY MAPPING & CONSTITUENT RECONSTRUCT
 05/19/1999 - 10/31/1999 FY99: \$40,411 Total: \$40,411
Prin. Invest.: G A MORRIS
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

IOWA

NAG 5 6854 DRAKE UNIVERSITY 4660
 WIRE OBSERVATIONS OF THE CIRCUMSTELLAR REGIONS OF EVOLVED
 MASSIVE STARS.
 02/19/1998 - 02/14/2000 FY99: \$24,500 Total: \$49,000
Prin. Invest.: A MARSTON
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 8 1222 DRAKE UNIVERSITY 4661
 JOVE
 11/30/1995 - 08/31/1999 FY99: \$0 Total: \$44,500
Prin. Invest.: M D VALLE-BOHORQUEZ
Tech. Officer: MSFC/D SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1933 IOWA STATE UNIVERSITY 4662
 DEVELOPMENT OF ENHANCED X-RAY INSPECTION
 05/21/1997 - 05/19/2000 FY99: \$80,000 Total: \$201,084
Prin. Invest.: J GRAY, J BASART
Tech. Officer: LARC/W P WINFREE, LARC/F R PARKER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1786 **IOWA STATE UNIVERSITY** **4663**
 GENERALIZED GEOMETRIC MODELING FOR TURBOMACHINERY APPLICATION
 09/15/1995 – 11/07/1997 FY99: \$0 Total: \$104,413
Prin. Invest.: J H OLIVER
Tech. Officer: GRC/D P MILLER, GRC/A L EVANS
CASE Category: 46 – MECHANICAL ENGR

NAG 3 2218 **IOWA STATE UNIVERSITY** **4664**
 MODELING SURFACE ICING ROUGHNESS MODELING SURFACE ICING ROUGHNESS
 12/15/1998 – 11/30/1999 FY99: \$84,996 Total: \$84,996
Prin. Invest.: A P ROTHMAYER
Tech. Officer: GRC/M G POTAPCZUK
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 1519 **IOWA STATE UNIVERSITY** **4665**
 DATA VALIDATION FOR TOTAL OZONE MAPPING SPECTROMETER FOR SMALL-CLASS EXPLORER
 04/02/1991 – 05/14/1999 FY99: \$0 Total: \$421,508
Prin. Invest.: J L STANFORD
Tech. Officer: GSFC/A J KRUEGER, GSFC/M R SCHOEBERL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2787 **IOWA STATE UNIVERSITY** **4666**
 DYNAMICAL ANALYSES OF MLS AND ISAMS DATA FROM THE UPPER ATMOSPHERE RESEARCH SATELLITE
 11/14/1994 – 11/14/1998 FY99: \$0 Total: \$192,452
Prin. Invest.: J L STANFORD
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2930 **IOWA STATE UNIVERSITY** **4667**
 ANALYSES FOR THE CLIMATOLOGY AND SHORT-TERM VARIABILITY OF THE ATMOSPHERIC GENERAL CIRCULATION ETC
 04/18/1995 – 05/31/1999 FY99: \$0 Total: \$240,000
Prin. Invest.: T C CHEN, J J TRIBIA
Tech. Officer: GSFC/S COHN
CASE Category: 11 – ASTRONOMY

NAG 5 3317 **IOWA STATE UNIVERSITY** **4668**
 IR IMAGING OF COLLISIONAL RING GALAXIES
 07/31/1996 – 08/14/1999 FY99: \$0 Total: \$18,000
Prin. Invest.: P N APPLETON
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3819 **IOWA STATE UNIVERSITY** **4669**
 OBSERVATIONS OF NEARBY BL LACERTAE OBJECTS AND OBS MARKARIAN 421 AND MARKARIAN 501
 01/24/1997 – 01/31/1998 FY99: \$0 Total: \$29,000
Prin. Invest.: D CARTER-LEWIS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3918 **IOWA STATE UNIVERSITY** **4670**
 BASIC AWARD
 02/24/1997 – 11/30/1998 FY99: -\$12,733 Total: \$45,761
Prin. Invest.: J A DICKERSON
Tech. Officer: GSFC/M A WOODARD, GSFC/P L CROUSE
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG 5 4060 **IOWA STATE UNIVERSITY** **4671**
 THEORETICAL MODELS OF HOT PRE-WHITE DWARFS FOR SEI
 03/18/1997 – 03/31/2000 FY99: \$0 Total: \$136,200
Prin. Invest.: S D KAWALER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6353 **IOWA STATE UNIVERSITY** **4672**
 MINIATURIZED LIQUID CHROMATOGRAPHY
 09/23/1997 – 11/30/1999 FY99: \$77,593 Total: \$152,951
Prin. Invest.: M POTTER
Tech. Officer: GSFC/L P CHAMBERS
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 7070 **IOWA STATE UNIVERSITY** **4673**
 COORDINATED OBSERVATIONS OF TEV BL LAC OBJECTS
 03/04/1998 – 03/14/2000 FY99: \$0 Total: \$23,900
Prin. Invest.: M A CATANESE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7133 **IOWA STATE UNIVERSITY** **4674**
 ATMOSPHERIC DYNAMICS DEDUCED FROM UARS USING MIDDLE ATMOSPHERE ISAMSCARBOT MONOXIDE AND UPPER T
 03/16/1998 – 04/30/2000 FY99: \$59,238 Total: \$93,460
Prin. Invest.: D L STANFORD
Tech. Officer: GSFC/A DOUGLASS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7271 **IOWA STATE UNIVERSITY** **4675**
 SMALL SCALE TROPOPAUSE DYNAMICS AND TOMS TOTAL OZONE
 05/05/1998 – 05/14/2000 FY99: \$53,000 Total: \$131,000
Prin. Invest.: S L STANFORD
Tech. Officer: GSFC/S CHANDRA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7423 **IOWA STATE UNIVERSITY** **4676**
 XTE PROPOSAL (30260) – CORRELATED OBSERVATIONS OF MARKARIAN 501
 05/26/1998 – 05/31/2000 FY99: \$0 Total: \$9,167
Prin. Invest.: M A CATANESE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7530 **IOWA STATE UNIVERSITY** **4677**
 ANALYSES FOR THE CLIMATOLOGY AND SHORT-TERM VARIABILITY OF THE ATMOSPHERIC GENERAL CIRCULATION
 06/12/1998 – 06/14/2000 FY99: \$46,000 Total: \$131,000
Prin. Invest.: T CHEN
Tech. Officer: GSFC/S SCHUBERT
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7561 **IOWA STATE UNIVERSITY** **4678**
 COUPLED ATMOSPHERE-SNOW MODEL EVALUATION OF REGIONAL SNOWMELT
 06/29/1998 – 06/30/2001 FY99: \$0 Total: \$270,000
Prin. Invest.: W J GUTOWSKI, JR.
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7756 **IOWA STATE UNIVERSITY** **4679**
 DYNAMICS OF THE ASTEROID ENVIRONMENT
 12/09/1998 - 10/31/1999 FY99: \$18,000 Total: \$18,000
Prin. Invest.: D J SCHEERES
Tech. Officer: GSFC/J GRANT
CASE Category: 11 - ASTRONOMY

NAG 5 8293 **IOWA STATE UNIVERSITY** **4680**
 DIAGNOSIS AND SIMULATION OF THE SOUTHEAST ASIAN-INDUCED WAVE-
 TRAIN THAT OCCURS DURING TROPICAL PACI
 02/25/1999 - 02/29/2000 FY99: \$32,531 Total: \$32,531
Prin. Invest.: T C CHEN
Tech. Officer: GSFC/M RIENECKER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8352 **IOWA STATE UNIVERSITY** **4681**
 THEORETICAL MODELS FOR SEISMOLOGICAL STUDIES OF HOT COMPACT
 STARS (ATP98)
 03/01/1999 - 02/29/2000 FY99: \$63,811 Total: \$63,811
Prin. Invest.: S D KAWALER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8455 **IOWA STATE UNIVERSITY** **4682**
 THE RESPONSE OF THE SOLAR ATMOSPHERE TO TIME-VARYING AND
 SPATIALLY INHOMOGENEOUS BOUNDARY CONDIT
 04/21/1999 - 03/31/2000 FY99: \$43,393 Total: \$43,393
Prin. Invest.: L A WILLSON
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 8 1289 **IOWA STATE UNIVERSITY** **4683**
 FOR RESEARCH "ENTRY GUIDANCE FOR THE REUSABLE LAUNCH
 VEHICLE."
 01/08/1997 - 01/07/1999 FY99: \$0 Total: \$63,227
Prin. Invest.: P LU
Tech. Officer: MSFC/J M HANSON, MSFC/G A DUKEMAN
CASE Category: 42 - AERONAUTICAL ENGR

NAG 9 827 **IOWA STATE UNIVERSITY** **4684**
 DETERMINING CONDITIONS FOR DEVELOPMENT OF FUNCTIONAL CARTI-
 LAGE
 08/15/1995 - 09/07/1999 FY99: \$0 Total: \$364,000
Prin. Invest.: C A HEATH
Tech. Officer: JSC/N R PELLIS
CASE Category: 56 - MEDICL

NAG 9 1115 **IOWA STATE UNIVERSITY** **4685**
 EXAMINATION OF BACTERIA MATERIALS
 05/10/1999 - 05/09/2004 FY99: \$15,000 Total: \$15,000
Prin. Invest.: P A BAZLINSKI
Tech. Officer: JSC/E K GIBSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 5216 **IOWA STATE UNIVERSITY** **4686**
 UNCERTAINTY RELATIONSHIP HANDLER FOR ESTIMATING ROBOT ENVI-
 RONMENTS (URHERE)
 05/16/1997 - 04/30/1999 FY99: \$0 Total: \$25,000
Prin. Invest.: G THOMAS
Tech. Officer: ARC/M H SIMS
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5349 **IOWA STATE UNIVERSITY** **4687**
 PROPOSAL FOR JOINT RESEARCH EXCHANGE BETWEEN NASA & ISU
 09/03/1999 - 11/30/1999 FY99: \$24,000 Total: \$24,000
Prin. Invest.: M S GORDON
Tech. Officer: ARC/W M HUO, ARC/R L JAFFE
CASE Category: 12 - CHEMISTRY

NCC 4 117 **IOWA STATE UNIVERSITY** **4688**
 COMBINE TRAJECTORY DESIGN AND FLIGHT CONTROL SYSTEM RECON-
 FIGURATION
 03/03/1998 - 12/31/1999 FY99: \$18,750 Total: \$45,000
Prin. Invest.: P LU
Tech. Officer: DFRC/J BURKEN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 4 122 **IOWA STATE UNIVERSITY** **4689**
 RECONFIGURABLE FLIGHT CONTROL SYSTEM DESIGN
 04/28/1999 - 04/28/2000 FY99: \$49,000 Total: \$49,000
Prin. Invest.: P LU
Tech. Officer: DFRC/J BURKEN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 8 98 **IOWA STATE UNIVERSITY** **4690**
 INTERFACE PATTERN SELECTION CRITERION FOR CELLULAR STRUC-
 TURES IN DIRECTIONAL SOLIDIFICATION
 06/28/1996 - 06/30/2001 FY99: \$189,000 Total: \$606,500
Prin. Invest.: R K TRIVEDI
Tech. Officer: MSFC/D HUBBARD
CASE Category: 49 - ENGINEERING, OTHER

NCC 9 100 **IOWA STATE UNIVERSITY** **4691**
 60 DAY DEFINITION PHASE
 08/01/1999 - 09/30/1999 FY99: \$300,000 Total: \$300,000
Prin. Invest.: D OLSEN
Tech. Officer: JSC/H LANE
CASE Category: 55 - AGRICULTURE

NGT 40018 **IOWA STATE UNIVERSITY** **4692**
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 03/14/1990 - 01/31/2000 FY99: -\$4,395 Total: \$2,444,351
Prin. Invest.: W J BYRD
Tech. Officer: HQ/E SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 3 52332 **IOWA STATE UNIVERSITY** **4693**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/11/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: A ROTHMAYER
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 46 - MECHANICAL ENGR

NGT 5 40027 **IOWA STATE UNIVERSITY** **4694**
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 01/09/1997 - 01/31/2001 FY99: \$475,000 Total: \$1,318,800
Prin. Invest.: W J BYRD
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

<p>NGT 5 50137 IOWA STATE UNIVERSITY 4695 MEMBRANE PROTEIN CRYSTALLIZATION: UNDERSTANDING T T ON CRYSTALLIZATION 09/10/1997 - 12/31/1998 FY99: \$0 Total: \$22,000 <i>Prin. Invest.:</i> J W WIENCEK <i>Tech. Officer:</i> HQ/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p>NAG 5 2346 UNIVERSITY OF IOWA 4703 GEOTAIL MCA PLASMA WAVE DATA ANALYSIS 08/09/1993 - 10/31/1998 FY99: \$0 Total: \$1,714,921 <i>Prin. Invest.:</i> R R ANDERSON <i>Tech. Officer:</i> GSFC/M ACONA CASE Category: 13 - PHYSICS</p>
<p>NAG 1 1907 UNIVERSITY OF IOWA 4696 IMPACT OF MINERAL AEROSOLS AND ASIAN EMISSIONS ON THE CHEMISTRY OF THE TROPOSPHERE 03/19/1997 - 03/31/2000 FY99: \$86,000 Total: \$308,000 <i>Prin. Invest.:</i> G R CAMICHAEL <i>Tech. Officer:</i> LARC/G L MADDREA, LARC/L R POOLE CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p>NAG 5 2371 UNIVERSITY OF IOWA 4704 ANALYSIS OF PLASMA MEASUREMENTS FOR THE GEOTAIL MISSION 09/21/1993 - 03/31/2000 FY99: \$0 Total: \$4,089,734 <i>Prin. Invest.:</i> L A FRANK <i>Tech. Officer:</i> GSFC/M H ACUNA CASE Category: 13 - PHYSICS</p>
<p>NAG 2 571 UNIVERSITY OF IOWA 4697 "CONTINUING ANALYSIS AND INTERPRETATION OF DATA FROM PIONEER 10 AND PIONEER 11" 05/23/1989 - 12/31/1999 FY99: \$0 Total: \$1,265,482 <i>Prin. Invest.:</i> J A VAN ALLEN <i>Tech. Officer:</i> ARC/L E LASHER, ARC/R O FIMMEL CASE Category: 11 - ASTRONOMY</p>	<p>NAG 5 2774 UNIVERSITY OF IOWA 4705 DEVELOPMENT OF GROUND RADAR RAINFALL ESTIMATION METHODOLOGY FOR VALIDATION OF TRMM SATELLITE ETC.. 10/26/1994 - 10/31/1997 FY99: \$0 Total: \$287,014 <i>Prin. Invest.:</i> W F KRAJEWSKI <i>Tech. Officer:</i> GSFC/O THIELE CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p>NAG 2 1167 UNIVERSITY OF IOWA 4698 VIDEO ENGRAVING FOR MOBILE ROBOTICS 11/19/1997 - 08/30/2000 FY99: \$25,999 Total: \$77,199 <i>Prin. Invest.:</i> G W THOMAS <i>Tech. Officer:</i> ARC/M H SIMS CASE Category: 22 - COMPUTER SCIENCE</p>	<p>NAG 5 2939 UNIVERSITY OF IOWA 4706 WIND AND POLAR DATA ANALYSIS 05/11/1995 - 05/14/1998 FY99: \$0 Total: \$65,000 <i>Prin. Invest.:</i> J D SCUDDER <i>Tech. Officer:</i> GSFC/K W OGILVIE CASE Category: 13 - PHYSICS</p>
<p>NAG 2 1296 UNIVERSITY OF IOWA 4699 REMOTE GEOLOGY SYSTEM ANALYSIS & DEVELOPMENT FOR MARS EXPLORATION 03/01/1999 - 01/31/2000 FY99: \$50,018 Total: \$50,018 <i>Prin. Invest.:</i> G W THOMAS <i>Tech. Officer:</i> ARC/M SIMS, ARC/S LAU CASE Category: 22 - COMPUTER SCIENCE</p>	<p>NAG 5 3295 UNIVERSITY OF IOWA 4707 HARD X-RAY PROPERTIES OF NARROW LINE SEYFERT 1 GALAXIES 07/17/1996 - 01/31/1998 FY99: \$0 Total: \$17,000 <i>Prin. Invest.:</i> R EDELSON <i>Tech. Officer:</i> GSFC/J SWANK CASE Category: 11 - ASTRONOMY</p>
<p>NAG 3 1592 UNIVERSITY OF IOWA 4700 BUOYANCY EFFECTS ON THE STRUCTURE AND STABILITY OF BURKE - SCHUMANN DIFFUSION FLAME 06/02/1994 - 12/01/1998 FY99: \$0 Total: \$390,000 <i>Prin. Invest.:</i> L D CHEN <i>Tech. Officer:</i> GRC/D STOCKER CASE Category: 46 - MECHANICAL ENGR</p>	<p>NAG 5 3318 UNIVERSITY OF IOWA 4708 ISO OBSERVATIONS OF VARIABLE CIRCUMSTELLAR SHELLS 07/31/1996 - 08/14/1999 FY99: \$0 Total: \$18,000 <i>Prin. Invest.:</i> J D FIX <i>Tech. Officer:</i> GSFC/D WEST CASE Category: 11 - ASTRONOMY</p>
<p>NAG 3 2128 UNIVERSITY OF IOWA 4701 PLASMA DUST CRYSTALLIZATION PLASMA DUST CRYSTALLIZATION 02/27/1998 - 12/31/2002 FY99: \$114,000 Total: \$214,000 <i>Prin. Invest.:</i> J A GOREE <i>Tech. Officer:</i> GRC/R B ROGERS CASE Category: 13 - PHYSICS</p>	<p>NAG 5 3328 UNIVERSITY OF IOWA 4709 GLOBAL ULTRAVIOLET IMAGING PROCESSING FOR THE GGS/SYSTEM 01/01/1996 - 09/30/1999 FY99: \$0 Total: \$462,006 <i>Prin. Invest.:</i> D A FRANK <i>Tech. Officer:</i> GSFC/R HOFFMAN CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>
<p>NAG 5 2231 UNIVERSITY OF IOWA 4702 METHODOLOGY FOR 3D QUADRATURE OF GGS/HYDRA DATA INCLUDING CALIBRATION DATA, SPACECRAFT POTENTIAL.. 05/10/1993 - 12/31/1999 FY99: \$0 Total: \$2,867,001 <i>Prin. Invest.:</i> J D SCUDDER <i>Tech. Officer:</i> GSFC/M H ACUNA, GSFC/D N BAKER CASE Category: 13 - PHYSICS</p>	<p>NAG 5 3716 UNIVERSITY OF IOWA 4710 BALLOONING INSTABILITIES OF THIN CURRENT SHEETS 01/24/1997 - 01/31/2001 FY99: \$80,250 Total: \$153,750 <i>Prin. Invest.:</i> A BHATTACHARJEE <i>Tech. Officer:</i> GSFC/J BOHLIN CASE Category: 13 - PHYSICS</p>

NAG 5 4266 UNIVERSITY OF IOWA 4711
 STUDY OF AURORAL ELECTRON ACCELERATION BY KINETIC
 03/25/1997 - 05/14/2000 FY99: \$137,371 Total: \$261,100
Prin. Invest.: D F OTANI
Tech. Officer: GSFC/D EVANS
CASE Category: 13 - PHYSICS

NAG 5 4497 UNIVERSITY OF IOWA 4712
 COMPREHENSIVE INVESTIGATION OF 2FP RADIO EMISSIONS THE DAYSIDE
 AND NIGHTSIDE AURORAL REGIONS
 05/06/1997 - 05/31/2000 FY99: \$0 Total: \$113,060
Prin. Invest.: D MENIETTI
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4581 UNIVERSITY OF IOWA 4713
 A LOW COST MERCURY ORBITER MISSION
 05/13/1997 - 03/31/2000 FY99: \$0 Total: \$34,000
Prin. Invest.: D S KURTH
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 4755 UNIVERSITY OF IOWA 4714
 GROUND-BASED RADAR-RAINFALL ESTIMATION FOR THE GUA VALIDA-
 TION SITES
 06/27/1997 - 06/30/2000 FY99: \$268,286 Total: \$658,286
Prin. Invest.: W F KRAJEWSKI
Tech. Officer: GSFC/G M HEYMSFIELD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5051 UNIVERSITY OF IOWA 4715
 PLASMA TURBULENCE IN THE INTERSTELLAR MEDIUM: SIMILARITY TO
 HELIOSPHERIC TURBULENCE & ROLE IN...
 01/25/1996 - 09/30/1999 FY99: \$0 Total: \$152,000
Prin. Invest.: S R SPANGLER
Tech. Officer: GSFC/H C NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5232 UNIVERSITY OF IOWA 4716
 ROCKET AURORAL CORRELATOR EXPERIMENT PI DR. CRAIG KLETZING
 02/12/1999 - 02/09/2002 FY99: \$110,557 Total: \$110,557
Prin. Invest.: C A KLETZING
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6127 UNIVERSITY OF IOWA 4717
 THEORETICAL STUDIES OF TYPE III SOLAR RADIO BURSTS
 08/04/1997 - 07/14/2000 FY99: \$64,537 Total: \$130,840
Prin. Invest.: D CAIRNS
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6369 UNIVERSITY OF IOWA 4718
 LANGMUIR-LIKE WAVES AND RADIATION IN PLANETARY FOR
 09/25/1997 - 08/31/2000 FY99: \$50,000 Total: \$87,000
Prin. Invest.: D H CAIRNS
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6525 UNIVERSITY OF IOWA 4719
 KINETIC ALFVEN WAVE ELECTRON ACCELERATION ON AURORAL FIELD
 LINES
 11/25/1997 - 08/31/2000 FY99: \$0 Total: \$72,074
Prin. Invest.: D A KLETZING
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6670 UNIVERSITY OF IOWA 4720
 PROJECT LIVE: LABORATORY FOR THE IMMERSIVE VISUALIZATION OF
 THE ENVIRONMENT
 12/16/1997 - 10/31/1999 FY99: \$0 Total: \$213,470
Prin. Invest.: M ARMSTRONG
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7187 UNIVERSITY OF IOWA 4721
 RESTORATION AND ARCHIVING OF THE ISEE 1 AND 2 PLASMA WAVE
 INVESTIGATION DATA SETS
 03/26/1998 - 03/31/2001 FY99: \$44,684 Total: \$87,640
Prin. Invest.: D ANDERSON
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 7390 UNIVERSITY OF IOWA 4722
 GENERATION AND SCATTERING OF RADIATION OBSERVED BY VOYAGER
 IN THE OUTER HELIOSPHERE
 05/07/1998 - 02/28/2001 FY99: \$9,000 Total: \$31,000
Prin. Invest.: I H CAIRNS
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 7684 UNIVERSITY OF IOWA 4723
 FUNDING OF THE ANALYSIS OF PLASMA MEASUREMENTS FOR THE GEO-
 TAIL EXTENDED MISSION / FUNDING FOR YR 1
 09/09/1998 - 09/30/2000 FY99: \$400,000 Total: \$870,000
Prin. Invest.: L A FRANK
Tech. Officer: GSFC/D H FAIRFIELD
CASE Category: 13 - PHYSICS

NAG 5 7710 UNIVERSITY OF IOWA 4724
 A PROPOSAL FOR STUDYING GEOMAGNETIC STORMS FROM THE ANAL-
 YSES AND INTER. OF PLASMA WAVE DATA
 09/23/1998 - 09/30/2000 FY99: \$140,000 Total: \$320,000
Prin. Invest.: R R ANDERSON
Tech. Officer: GSFC/D H FAIRFIELD
CASE Category: 13 - PHYSICS

NAG 5 7712 UNIVERSITY OF IOWA 4725
 FUNDING FOR VIS ON THE POLAR SPACECRAFT FOR THE EXTENDED MIS-
 SION
 09/28/1998 - 09/30/1999 FY99: \$0 Total: \$850,000
Prin. Invest.: L A FRANK
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 13 - PHYSICS

NAG 5 7883 UNIVERSITY OF IOWA 4726
 COLLISIONLESS RECONNECTION: THEORY AND HIGH-RESOLUTION SIMULATIONS FOR THE ISTP/SOLARMAX MISSION
 12/01/1998 - 11/30/1999 FY99: \$60,698 Total: \$60,698
Prin. Invest.: J D SCUDDER
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 7943 UNIVERSITY OF IOWA 4727
 POLAR PLASMA WAVE INVESTIGATION DATA ANALYSIS IN THE EXTENDED MISSION
 01/27/1999 - 12/31/1999 FY99: \$455,757 Total: \$455,757
Prin. Invest.: D GURNATT
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8119 UNIVERSITY OF IOWA 4728
 GGS-POLAR-HYDRA EXTENDED MISSION SCIENCE INVESTIGATION
 01/29/1999 - 12/31/1999 FY99: \$744,000 Total: \$744,000
Prin. Invest.: J SCUDDER
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 292 UNIVERSITY OF IOWA 4729
 PLASMA DUST CRYSTALLIZATION
 08/04/1993 - 09/30/1997 FY99: \$0 Total: \$333,257
Prin. Invest.: J GOREE
Tech. Officer: MSFC/B GUYNES, MSFC/R PORTER
CASE Category: 11 - ASTRONOMY

NAG 8 1153 UNIVERSITY OF IOWA 4730
 EMPIRICAL MODELS OF THE INNER MAGNETOSPHERIC ION PLASMA COMPOSITION AND TEMPERATURE
 06/21/1995 - 06/20/1998 FY99: \$0 Total: \$94,652
Prin. Invest.: J D MENIETTI
Tech. Officer: MSFC/P D CRAVEN, MSFC/D L GALLAGHER
CASE Category: 13 - PHYSICS

NAG 8 1352 UNIVERSITY OF IOWA 4731
 FOR RESEARCH "REAL TIME MONITORING OF PROTEIN CONCENTRATION IN SOLUTION TO CONTROL NUCLEATION..."
 06/02/1997 - 11/30/2000 FY99: \$136,146 Total: \$364,542
Prin. Invest.: M A ARNOLD
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1386 UNIVERSITY OF IOWA 4732
 RESEARCH "THERMODYNAMICS OF PROTEIN CRYSTALLIZATION AND LINKS TO CRYSTAL QUALITY"
 06/23/1997 - 11/23/2000 FY99: \$162,000 Total: \$390,000
Prin. Invest.: J M WIENECK
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
CASE Category: 12 - CHEMISTRY

NAG 8 1425 UNIVERSITY OF IOWA 4733
 R/S SHORT TERM QUANTITATIVE PRECIPITATION FORECASTING USING MULTI-SENSOR REMOTE SENSING AND ETA
 01/14/1998 - 12/31/1999 FY99: \$61,470 Total: \$117,940
Prin. Invest.: W F KRAJEWSKI
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1588 UNIVERSITY OF IOWA 4734
 REJUBENATION OF SPENT MEDIA VIA SUPPORTED EMULSION LIQUID MEMBRANES
 03/19/1999 - 11/30/2002 FY99: \$153,000 Total: \$153,000
Prin. Invest.: J WIENECK
Tech. Officer: MSFC/B GUYNES, MSFC/D CHAFEE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1591 UNIVERSITY OF IOWA 4735
 EVALUATING OXIDATIVE STRESS IN VIRALLY-INFECTED CELLS IN SIMULATED MICROGRAVITY
 03/19/1999 - 11/30/2002 FY99: \$104,000 Total: \$104,000
Prin. Invest.: V G RODGERS
Tech. Officer: MSFC/B GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1592 UNIVERSITY OF IOWA 4736
 R/S MONITORING AND CONTROL OF ROTATING WALL VESSELS AND APPLICATION TO THE STUDY OF PROSTATE
 03/30/1999 - 11/30/2002 FY99: \$121,000 Total: \$121,000
Prin. Invest.: D W MURHAMMER
Tech. Officer: MSFC/B GUYNES, MSFC/D CHAFEE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1593 UNIVERSITY OF IOWA 4737
 R/S EXTREMOPHILIC INTERFACIAL SYSTEMS FOR WASTE PROCESSING IN SPACE
 03/15/1999 - 11/30/2002 FY99: \$93,000 Total: \$93,000
Prin. Invest.: T L PEEPLES
Tech. Officer: MSFC/B GUYNES, MSFC/D CHAFEE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 824 UNIVERSITY OF IOWA 4738
 STUDY OF PROSTATE CANCER
 08/08/1995 - 08/24/2000 FY99: \$0 Total: \$905,000
Prin. Invest.: D W MURHAMMER
Tech. Officer: JSC/N PELLIS
CASE Category: 56 - MEDICAL

NAS 5 30316 UNIVERSITY OF IOWA 4739
 MISSION OPS & DATA ANALYSIS VISIBLE IMAGING INVESTIGATION
 02/06/1989 - 02/28/1999 FY99: \$0 Total: \$15,721,659
Prin. Invest.: L FRANK
Tech. Officer: GSFC/J GALLOWAY
CASE Category: 13 - PHYSICS

NAS 5 30371 UNIVERSITY OF IOWA 4740
 PLASMA WAVE INVESTIGATION PHASE C/D ISTP POLAR MISSION
 12/29/1988 - 03/31/1999 FY99: \$0 Total: \$9,566,160
Prin. Invest.: D A GURNETT
Tech. Officer: GSFC/D CROSBY
CASE Category: 13 - PHYSICS

NAS 5 30730 UNIVERSITY OF IOWA 4741
 ISTP PROJECT'S WIDEBAND PLASMA WAVE INVESTIGATION
 01/30/1990 - 10/31/2001 FY99: \$780,958 Total: \$6,359,924
Prin. Invest.: D GURNETT
Tech. Officer: GSFC/J L CHRISTENSEN
CASE Category: 31 - ATMOSPHERIC SCIENCE

KANSAS

NASA'S UNIVERSITY PROGRAM

NCC 3 666 UNIVERSITY OF IOWA 4742
 REFLIGHT OF ELF (ENCLOSED LAMINAR FLAMES) INVESTIGATION
 02/02/1999 - 01/03/2003 FY99: \$61,875 Total: \$61,875
Prin. Invest.: D CHEN
Tech. Officer: GRC/D P STOCKER
CASE Category: 49 - ENGINEERING, OTHER

NCC 8 94 UNIVERSITY OF IOWA 4743
 EQUIAXED DENDRITIC SOLIDIFICATION EXPERIMENT (EDSE)
 05/31/1996 - 05/31/2000 FY99: \$130,000 Total: \$516,980
Prin. Invest.: C BECKERMANN
Tech. Officer: MSFC/J FRAIZER, MSFC
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30031 UNIVERSITY OF IOWA 4744
 VALIDATION OF RAINFALL ESTIMATES FROM SPACE-BORNE
 10/17/1996 - 02/28/2001 FY99: \$0 Total: \$66,000
Prin. Invest.: W F KRAJEWSKI
Tech. Officer: GSFC/G ASRAR
CASE Category: 11 - ASTRONOMY

NGT 5 30199 UNIVERSITY OF IOWA 4745
 ASSESSMENT OF THE IMPACT OF ASIAN EMISSIONS ON A LOCAL,
 REGIONAL & GLOBAL SCALE/STUDENT: SARATHG
 08/25/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: G CARMICHAEL
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50139 UNIVERSITY OF IOWA 4746
 CHARACTERIZATION AND MEASUREMENT OF FORCE ON PARTIAL
 EXPERIMENT
 09/12/1997 - 06/30/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: J GOREE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50156 UNIVERSITY OF IOWA 4747
 MICROVASCULAR ALTERATIONS IN SIMULATED MICROGRAVITY
 09/11/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: C V GISOLFI
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 70009 UNIVERSITY OF IOWA 4748
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) PERIOD OF
 PERF. 7/1/97 - 6/30/98. FORMERLY NGT 70411
 10/17/1997 - 06/30/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: J SCUDDER
Tech. Officer: GSFC/STOUTSENBERGER
CASE Category: 13 - PHYSICS

NAG 5 3751 UNIVERSITY OF NORTHERN IOWA 4749
 ALTERED GRAVITY AND EARLY HEART DEVELOPMENT IN CUL
 03/10/1997 - 03/14/1998 FY99: -\$1,339 Total: \$75,184
Prin. Invest.: D J WIENS
Tech. Officer: GSFC/T SCOTT/
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 265 UNIVERSITY OF NORTHERN IOWA 4750
 JOVE
 12/30/1992 - 03/15/1999 FY99: \$0 Total: \$94,621
Prin. Invest.: T A HOCKEY, D J WIENS
Tech. Officer: MSFC/F SIX
CASE Category: 31 - ATMOSPHERIC SCIENCE

KANSAS

NAG 5 8633 FORT HAYS STATE UNIVERSITY 4751
 A STUDY OF THE SEASONAL & INTERANNUAL VARIABILITY OF ICE PRO-
 DUCED & HEAT TRANSPORT IN BAFFIN BAY
 07/01/1999 - 06/30/2000 FY99: \$39,542 Total: \$39,542
Prin. Invest.: J HEINRICH
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1503 KANSAS STATE UNIVERSITY 4752
 CRACK GROWTH PREDICTION METHODOLOGY FOR MULTI-SITE DAMAGE:
 LAYERED ANALYSIS AND GROWTH NLPN 93-210
 04/12/1993 - 11/11/1998 FY99: \$0 Total: \$278,896
Prin. Invest.: D V SWENSON
Tech. Officer: LARC/J C NEWMAN, LARC/C E HARRIS
CASE Category: 46 - MECHANICAL ENGR

NAG 1 2234 KANSAS STATE UNIVERSITY 4753
 FURTHER INVEST OF RECEDING HORIZON-BASED CON- TROLLERS &
 NEURAL NETWORK-BASED GPC SYSTEMS
 08/20/1999 - 06/12/2000 FY99: \$21,884 Total: \$21,884
Prin. Invest.: A G KELKAR
Tech. Officer: LARC/P J HALEY
CASE Category: 21 - MATHEMATICS

NAG 2 1209 KANSAS STATE UNIVERSITY 4754
 MODEL CONSTRUCTION FOR FINITE STATE VERIFICATION: APPLICATION
 OF ABSTRACT INTERPRETATION & PARTIAL
 05/01/1998 - 03/31/2000 FY99: \$250,000 Total: \$443,064
Prin. Invest.: D A SCHMIDT
Tech. Officer: ARC/M R LOWRY
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1274 KANSAS STATE UNIVERSITY 4755
 DIFFERENTIATION OF BONE MARROW MACROPHAGES IN SPAC E-PHASE
 A
 12/28/1998 - 06/30/2000 FY99: \$124,499 Total: \$124,499
Prin. Invest.: S K CHAPES
Tech. Officer: ARC/W E HINDS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3885 KANSAS STATE UNIVERSITY 4756
 EFFECTS OF SILVER AND OTHER METALS ON THE CYTOSKELETON
 03/06/1997 - 02/14/1999 FY99: \$0 Total: \$132,820
Prin. Invest.: G CONRAD
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6213 KANSAS STATE UNIVERSITY 4757
 LAND-COVER CHANGE IN THE GREAT PLAINS: PREDICTING IMPACTS OF
 REGIONAL FOREST EXPANSION ON BIOGEOCH
 10/24/1997 - 01/31/2000 FY99: \$0 Total: \$426,880
 Prin. Invest.: D JOHNSON
 Tech. Officer: GSFC/A JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 2328 KANSAS STATE UNIVERSITY 4758
 THE CENTER FOR GRAVITATIONAL STUDIES IN CELLULAR AND DEVELOP-
 MENTAL BIOLOGY
 02/12/1991 - 08/31/1999 FY99: \$0 Total: \$5,070,154
 Prin. Invest.: B S SPOONER
 Tech. Officer: HQ/R J WHITE
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG10 142 KANSAS STATE UNIVERSITY 4759
 STARCH METABOLISM IN SPACE-GROWN SOYBEAN SEEDLINGS
 07/15/1994 - 09/30/1999 FY99: \$0 Total: \$325,372
 Prin. Invest.: J A GUIKEMA
 Tech. Officer: KSC/W M KNOTT
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG10 189 KANSAS STATE UNIVERSITY 4760
 EFFECTS OF MICRO-G ON GENE EXPRESSION IN HIGHER PLANTS
 03/28/1996 - 09/30/1999 FY99: \$0 Total: \$124,750
 Prin. Invest.: D LI
 Tech. Officer: KSC/W M KNOTT
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 1 225 KANSAS STATE UNIVERSITY 4761
 GENERALIZED PREDICTIVE AND NEURAL GENERALIZED PREDICTIVE CON-
 TROL AEROSPACE SYSTEMS
 05/07/1996 - 05/15/2000 FY99: \$28,115 Total: \$127,618
 Prin. Invest.: A G KELKAR
 Tech. Officer: LARC/P J HALEY, ARC/D I SOLOWAY
 CASE Category: 21 - MATHEMATICS

NCC 1 226 KANSAS STATE UNIVERSITY 4762
 PASSIVITY-BASED ROBUST CONTROL OF AEROSPACE SYST
 04/09/1996 - 04/08/2000 FY99: \$20,781 Total: \$115,875
 Prin. Invest.: D G KELKAR
 Tech. Officer: LARC/D M JOSHI
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 348 KANSAS STATE UNIVERSITY 4763
 SYNTHESIS METHODS FOR ROBUST PASSIFICATION AND CONTROL OF
 LINEAR, TIME-INVARIANT (LTI) SYSTEMS
 06/29/1999 - 05/31/2000 FY99: \$12,500 Total: \$12,500
 Prin. Invest.: A G KELKAR
 Tech. Officer: LARC/S M JOSHI
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 871 KANSAS STATE UNIVERSITY 4764
 IMPACT OF GENERAL AVIATION ON THE CENTER-TRACON AUTOMATION
 SYSTEM (CTAS)
 07/15/1994 - 06/30/1998 FY99: -\$957 Total: \$171,357
 Prin. Invest.: P J GORDER
 Tech. Officer: ARC/R K GREIF
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 234 KANSAS STATE UNIVERSITY 4765
 ASPECTS AND CONTROL OF TIDAL SEDIMENTATION AND THE EXTRAC-
 TION AND MODELING OF TIDAL PARAMETERS FROM
 12/12/1997 - 09/30/2000 FY99: \$25,000 Total: \$75,000
 Prin. Invest.: A ARCHER
 Tech. Officer: GSFC/B BILLS
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 5 71 KANSAS STATE UNIVERSITY 4766
 GSRP TRAINING GRANT - GEORGE NELSON - SHAPE TUNING OF
 EXTREMELY LARGE ORBITAL TELESCOPE MIRRORS
 06/09/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: J A MAIN
 Tech. Officer: GSFC/M S BURRELL
 CASE Category: 46 - MECHANICAL ENGR

NGT 5 50008 KANSAS STATE UNIVERSITY 4767
 USING SPATIO-TEMPORAL HETEROGENEITY OF LANDCOVER C - SENSOR
 ANALYSIS OF A TALLGRASS PRAIRIE GRADIENT
 11/25/1996 - 12/31/1998 FY99: -\$113 Total: \$43,887
 Prin. Invest.: J BRIGGS
 Tech. Officer: GSFC/A NURRIDIN
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT10 52616 KANSAS STATE UNIVERSITY 4768
 A GRADUATE STUDENT RESEARCH PROGRAM
 07/14/1998 - 08/06/1999 FY99: -\$2,618 Total: \$19,382
 Prin. Invest.: J UHLERIK
 Tech. Officer: KSC/L RUPE
 CASE Category: 22 - COMPUTER SCIENCE

NAG 1 1735 UNIVERSITY OF KANSAS 4769
 INTERIOR NOISE REDUCTION BY ADAPTIVE FEEDBACK VIBRATION CON-
 TROL
 07/05/1995 - 07/04/1998 FY99: -\$497 Total: \$29,504
 Prin. Invest.: T W LIM
 Tech. Officer: LARC/R J SILCOX
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1821 UNIVERSITY OF KANSAS 4770
 AERODYNAMIC MODELING FOR AIRCRAFT IN UNSTEADY FLIGHT CON-
 DITIONS
 03/22/1996 - 09/30/1999 FY99: \$1 Total: \$140,169
 Prin. Invest.: C E LAN
 Tech. Officer: LARC/J M BRANDON
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 2358 UNIVERSITY OF KANSAS 4771
 STUDIES OF MICROWAVE SCATTERING AND CANOPY ARCHITECTURE
 FOR BOREAL FORESTS: ACQUISITION AND...
 09/13/1993 - 06/14/1998 FY99: \$0 Total: \$220,359
 Prin. Invest.: P M RICH
 Tech. Officer: GSFC/F G HALL, GSFC/P J SELLERS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4039 UNIVERSITY OF KANSAS 4772
 PROBING LARGE SCALE STRUCTURE AND GALAXY FORMATION ABSORPTION SPECTRA
 02/26/1997 - 02/28/1999 FY99: \$0 Total: \$35,000
Prin. Invest.: D L MELOTT
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4358 UNIVERSITY OF KANSAS 4773
 STUDIES IN PLANETARY AERONOMY
 04/17/1997 - 03/31/2000 FY99: \$69,800 Total: \$206,500
Prin. Invest.: D E CRAVENS
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4523 UNIVERSITY OF KANSAS 4774
 SOLAR CYCLE TIME SCALE OBSERVATIONS OF INTERPLANET AND PROTONS
 05/08/1997 - 04/30/1998 FY99: -\$1,176 Total: \$14,241
Prin. Invest.: D P ARMSTRONG
Tech. Officer: GSFC/J WILLETT
CASE Category: 11 - ASTRONOMY

NAG 5 4990 UNIVERSITY OF KANSAS 4775
 DEVELOPMENT OF LAND USE MAPPING AND PROTOCOL FOR T A MULTITEMPORAL REMOTE SENSING APPLICATION
 06/27/1997 - 06/14/2000 FY99: \$75,000 Total: \$365,431
Prin. Invest.: K P PRICE
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6345 UNIVERSITY OF KANSAS 4776
 MEASUREMENT OF THICKNESS OF THE GREENLAND ICE SHEET SCATTERING PROPERTIES OF GLACIAL ICE
 09/12/1997 - 09/30/1999 FY99: \$0 Total: \$391,548
Prin. Invest.: S D GOGINENI
Tech. Officer: GSFC/E E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6518 UNIVERSITY OF KANSAS 4777
 AN INTERDISCIPLINARY CENTER OF EXCELLENCE IN ENVIRONMENTAL REMOTESENSING AT THE UNIVERSITY O
 10/23/1997 - 12/31/1998 FY99: \$0 Total: \$326,336
Prin. Invest.: K P PRICE
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6608 UNIVERSITY OF KANSAS 4778
 A DATA SERVER AND PROCESSING FACILITY FOR GREENLAND ICE SHEET RADARSOUNDING MEASUREMENTS
 02/12/1998 - 12/31/1998 FY99: \$0 Total: \$74,870
Prin. Invest.: J M STILES
Tech. Officer: GSFC/R THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6766 UNIVERSITY OF KANSAS 4779
 STATISTICAL ALGORITHMS FOR THE ANALYSIS OF SPACE-BASED DATA-SETS
 01/15/1998 - 12/31/1999 FY99: \$0 Total: \$36,600
Prin. Invest.: K ASHMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7053 UNIVERSITY OF KANSAS 4780
 ANALYSIS OF AIRCRAFT LASER ALTIMETER DATA FROM GREENLAND
 02/25/1998 - 02/28/2001 FY99: \$31,505 Total: \$56,487
Prin. Invest.: D A BRAATEN
Tech. Officer: GSFC/R THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7516 UNIVERSITY OF KANSAS 4781
 TRACKING INTERNAL LAYERS OF THE GREENLAND ICE SHEET USING AIRBORNE RADIO ECHO SOUNDER IMAGES
 06/04/1998 - 05/31/2000 FY99: \$19,304 Total: \$49,291
Prin. Invest.: J GAUCH
Tech. Officer: GSFC/W ABDALATI
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 1588 UNIVERSITY OF KANSAS 4782
 STUDIES IN PLANETARY AERONOMY
 12/28/1988 - 08/15/1998 FY99: \$0 Total: \$488,331
Prin. Invest.: T E CRAVENS
Tech. Officer: HQ/J T BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG13 99009 UNIVERSITY OF KANSAS 4783
 CONSORTIUM FOR PRODUCTS AND TECHNOLOGY TO SUPPORT THE GREAT PLAINS AGROECOSYSTEM
 03/01/1999 - 03/01/2002 FY99: \$1,550,000 Total: \$1,550,000
Prin. Invest.: E A MARTINKO
Tech. Officer: SSC/C HILL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 99019 UNIVERSITY OF KANSAS 4784
 REMOTE SENSING-BASED GEOSTATISTICAL MODELING FOR CONIFEROUS FOREST INVENTORY & CHARACTERIZATION
 08/10/1999 - 08/09/2002 FY99: \$87,525 Total: \$87,525
Prin. Invest.: M JAKUBAUSKAS
Tech. Officer: SSC/R MCKALLIP
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 1 99052 UNIVERSITY OF KANSAS 4785
 DEVELOPMENT OF A HYBRID RF/LASER RADAR
 03/08/1999 - 03/07/2000 FY99: \$222,000 Total: \$222,000
Prin. Invest.: C ALLEN
Tech. Officer: LARC/J HILL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 168 UNIVERSITY OF KANSAS 4786
 KANSAS SPACE AND LIFE SCIENCES, GEOPHYSICAL INFORMATION AERONAUTICS AND FLIGHT ENGINEERING TECHNOLOGY (K-
 01/27/1997 - 12/31/1999 FY99: \$500,000 Total: \$1,500,000
Prin. Invest.: D R DOWNING
Tech. Officer: GSFC/J DASCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 415 UNIVERSITY OF KANSAS 4787
 EPSCOR PREPARATION PROGRAM
 06/24/1999 - 06/30/2000 FY99: \$225,000 Total: \$225,000
Prin. Invest.: D DOWNING
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40026 UNIVERSITY OF KANSAS 4788
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 04/30/1991 - 09/30/1997 FY99: \$0 Total: \$984,000
Prin. Invest.: D R DOWNING
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 3 52361 UNIVERSITY OF KANSAS 4789
 NASA GRADUATE STUDENT RESEARCHERS PROGRAM NASA GRADUATE
 STUDENT RESEARCHERS PROGRAM
 08/18/1999 - 08/14/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R TAGHAVI
Tech. Officer: GRC/M MEYER
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 30029 UNIVERSITY OF KANSAS 4790
 RADAR INTERFEROMETRY FOR IMPROVED CROSS-TRACT RESO OF THE
 THICKNESS OF THE GREENLAND ICE SHEET
 10/17/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: S GOGINENI
Tech. Officer: GSFC/G ASRAR
CASE Category: 11 - ASTRONOMY

NGT 5 40033 UNIVERSITY OF KANSAS 4791
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 02/13/1997 - 09/15/1998 FY99: \$0 Total: \$170,000
Prin. Invest.: D R DOWNING
Tech. Officer: HQ/J DASCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40065 UNIVERSITY OF KANSAS 4792
 KANSAS/NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 09/16/1998 - 03/31/2000 FY99: \$212,500 Total: \$425,000
Prin. Invest.: D R DOWNING
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50073 UNIVERSITY OF KANSAS 4793
 A HIGH RESOLUTION RADAR CHARACTERIZATION OF ICE IN TERRESTRIAL
 LIFE
 08/26/1997 - 07/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: R G PLUMB
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50161 UNIVERSITY OF KANSAS 4794
 ESTIMATING SOIL MOISTURE OVER 4 TALLGRASS PRAIRIE USING ERS-2
 SAR
 10/02/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: J HARRINGTON
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50219 UNIVERSITY OF KANSAS 4795
 DEVELOPMENT OF RADAR SYSTEM FOR ACCUMULATION MEASUREMENT-
 SESSF STUDENT: PANNIRSELVAM
 09/17/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: G S PRASAD
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 2 1016 UNIVERSITY OF KANSAS MEDICAL CENTER 4796
 MICROGRAVITY & SIGNAL TRANSDUCTION PATHWAYS IN SPERM
 10/12/1995 - 11/30/1999 FY99: \$85,480 Total: \$569,927
Prin. Invest.: J S TASH
Tech. Officer: ARC/C M WINGET, ARC/G C JANHS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1985 WICHITA STATE UNIVERSITY 4797
 MODERNIZE AND EXPAND THE WATER IMPINGEMENT DATA BASE FOR AIR-
 CRAFT SURFACES
 11/12/1996 - 11/30/1999 FY99: \$173,755 Total: \$396,975
Prin. Invest.: M PAPADAKIS
Tech. Officer: GRC/C S BIDWELL
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2137 WICHITA STATE UNIVERSITY 4798
 PILOT SIMULATOR TRAINING FOR AIRCRAFT ICING PILOT SIMULATOR
 TRAINING FOR AIRCRAFT ICING
 03/06/1998 - 10/31/1999 FY99: \$297,497 Total: \$452,386
Prin. Invest.: D ELLIS, M PAODAKIS
Tech. Officer: GRC/T H BOND
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2288 WICHITA STATE UNIVERSITY 4799
 STUDENT INTERN PROGRAM IN MICROGRAVITY COMBUSTION STUDENT
 INTERN PROGRAM IN MICROGRAVITY COMBUSTION
 08/27/1999 - 12/15/1999 FY99: \$9,740 Total: \$9,740
Prin. Invest.: D N KOERT
Tech. Officer: GRC/D L DIETRICH
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 3435 WICHITA STATE UNIVERSITY 4800
 SPECTROSCOPIC PROPERTIES OF SUB STELLAR OBJECTS
 10/01/1996 - 09/30/2000 FY99: \$76,100 Total: \$224,100
Prin. Invest.: F ALLARD
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NCA 1 106 WICHITA STATE UNIVERSITY 4801
 GENERAL AVIATION PROGRAM/AGATE
 02/24/1995 - 10/31/1999 FY99: \$859,500 Total: \$3,329,474
Prin. Invest.: H WILLIFORD, D ELLIS
Tech. Officer: LARC/W E RICKS
CASE Category: 41 - AERONAUTICAL ENGR

NCA 3 111 WICHITA STATE UNIVERSITY 4802
 JOINT SPONSORED RESEARCH AGREEMENT - ICHING RESEARCH H
 02/22/1996 - 12/31/1999 FY99: -\$15,400 Total: \$368,101
Prin. Invest.: D ELLIS
Tech. Officer: GRC/T H BOND
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 624 **WICHITA STATE UNIVERSITY** **4803**
 TAILPLANE ICING PROGRAM - PHASE II TAILPLANE ICING PROGRAM -
 PHASE II
 06/08/1998 - 11/30/1999 FY99: \$151,565 Total: \$251,550
Prin. Invest.: M PAPADAKIS, D ELLIS
Tech. Officer: GRC/T P RATVASKY
CASE Category: 41 - AERONAUTICAL ENGR

KENTUCKY

NAG 9 906 **EASTERN KENTUCKY UNIVERSITY** **4804**
 EXCAVATION IN REDUCED GRAVITY ENVIRONMENT
 09/19/1996 - 01/31/1999 FY99: -\$121 Total: \$4,879
Prin. Invest.: W BOLES
Tech. Officer: JSC/J CONNOLLY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 2 1121 **UNIVERSITY OF KENTUCKY** **4805**
 CARBON NANOTUBULES: BUILDING BLOCKS FOR NANOMETER -SCALE
 ENGINEERING
 02/25/1997 - 10/31/1999 FY99: \$49,548 Total: \$137,576
Prin. Invest.: S B SINNOTT
Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1208 **UNIVERSITY OF KENTUCKY** **4806**
 QUANTUM MOLECULAR DYNAMIC SIMULATIONS OF NANOTUBE TIP
 ASSISTED REACTIONS
 04/30/1998 - 09/30/1998 FY99: \$0 Total: \$25,000
Prin. Invest.: M MENON
Tech. Officer: ARC/S SAINI
CASE Category: 13 - PHYSICS

NAG 2 1363 **UNIVERSITY OF KENTUCKY** **4807**
 BIOMIMETIC DETECTION SCHEMES ON A MICROCENTRIFUGE PLATFORMS
 (LABCD)
 07/27/1999 - 01/14/2000 FY99: \$141,566 Total: \$141,566
Prin. Invest.: S DAUNERT
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 2018 **UNIVERSITY OF KENTUCKY** **4808**
 TRANSITION & TURBULENCE MODELING OF LOW PRESSURE T URBINE
 FLOWS
 03/12/1997 - 11/30/1997 FY99: -\$214 Total: \$34,809
Prin. Invest.: P G HUANG
Tech. Officer: GRC/D E ASPHIS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2099 **UNIVERSITY OF KENTUCKY** **4809**
 LARGE EDDY SIMULATION OF FLOWS IN TURBINE CASCADES USING CON-
 SERVATIVE UPWIND-BIASED 5TH ORDER NUMB
 12/23/1997 - 11/30/2000 FY99: \$78,705 Total: \$168,209
Prin. Invest.: P G HYANG
Tech. Officer: GRC/D E ASPHIS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3010 **UNIVERSITY OF KENTUCKY** **4810**
 A SUPPLEMENTAL CATALOGUE OF IRAS CIRCUMSTELLAR SHELLS MIS NO.
 9501190844
 07/18/1995 - 07/31/1998 FY99: -\$517 Total: \$175,483
Prin. Invest.: M ELITZUR, NONE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3223 **UNIVERSITY OF KENTUCKY** **4811**
 PROBING THE CENTRAL REGIONS OF ACTIVE NUCLEI
 05/15/1996 - 05/14/1999 FY99: \$0 Total: \$183,880
Prin. Invest.: FERLAND
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3841 **UNIVERSITY OF KENTUCKY** **4812**
 GAS DYNAMICS IN ACTIVE GALACTIC NUCLEI: BROAD LINE
 02/28/1997 - 02/14/2000 FY99: \$59,500 Total: \$182,500
Prin. Invest.: I SHLOSMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4235 **UNIVERSITY OF KENTUCKY** **4813**
 THEORETICAL STUDIES OF INFRARED EMISSION FROM STAR
 03/24/1997 - 03/31/2000 FY99: \$99,400 Total: \$253,900
Prin. Invest.: D A VERNER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4510 **UNIVERSITY OF KENTUCKY** **4814**
 PROBING LOW IONIZATION GAS IN STARS & AGNS: THE SI
 05/29/1997 - 01/31/1998 FY99: -\$177 Total: \$9,382
Prin. Invest.: G J FERLAND
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4594 **UNIVERSITY OF KENTUCKY** **4815**
 IN-SITU, REMOTE CHEMICAL SENSORS BASED ON THIN MAG
 05/12/1997 - 05/14/2000 FY99: \$126,674 Total: \$376,695
Prin. Invest.: C A GRIMES
Tech. Officer: GSFC/G FOGLEMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 8148 **UNIVERSITY OF KENTUCKY** **4816**
 ATOMIC DATA FOR ASTROPHYSICS DATABASE DEVELOPMENT
 02/04/1999 - 12/31/1999 FY99: \$49,849 Total: \$49,849
Prin. Invest.: D VERNER
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 8165 **UNIVERSITY OF KENTUCKY** **4817**
 QUANTITATIVE X-RAY - UV LINE AND CONTINUUM SPECTRO SCOPY WITH
 APPLICATION TO AGN
 02/09/1999 - 01/31/2000 FY99: \$57,705 Total: \$57,705
Prin. Invest.: G J FERLAND
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 8212 **UNIVERSITY OF KENTUCKY** **4818**
 FUNDAMENTAL PROBLEMS IN ASTROPHYSICAL PLASMAS (LTS A98)
 02/26/1999 - 02/29/2000 FY99: \$75,051 Total: \$75,051
Prin. Invest.: G J FERLAND
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NASA'S UNIVERSITY PROGRAM

KENTUCKY

NAG 8 1317 UNIVERSITY OF KENTUCKY 4819
 ADVANCED INFLATABLE STRUCTURES FOR AEROSPACE
 01/14/1997 - 12/31/1998 FY99: \$0 Total: \$250,000
Prin. Invest.: J MAIN
Tech. Officer: MSFC/B EMRICH
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 2 5193 UNIVERSITY OF KENTUCKY 4820
 TEMPERATURE FLUCTUATIONS IN THE ORION NEBULA AND NEBULAR
 ABUNDANCE SCALE
 11/01/1996 - 05/31/2000 FY99: \$0 Total: \$53,987
Prin. Invest.: D J FERLAND
Tech. Officer: ARC/D GOORITCH
CASE Category: 11 - ASTRONOMY

NCC 3 590 UNIVERSITY OF KENTUCKY 4821
 TURBULENCE & TRANSITION MODELING OF LOW PRESSURE T URBINE
 FLOWS
 12/17/1997 - 11/30/1999 FY99: \$85,236 Total: \$162,238
Prin. Invest.: G HUANG
Tech. Officer: GRC/D E ASHPIS
CASE Category: 41 - AERONAUTICAL ENGR

NGT 40049 UNIVERSITY OF KENTUCKY 4822
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 07/24/1991 - 02/28/1998 FY99: -\$7,049 Total: \$991,951
Prin. Invest.: R HACKNEY
Tech. Officer: HQ/E SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 1 52146 UNIVERSITY OF KENTUCKY 4823
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 07/22/1996 - 09/30/1998 FY99: \$0 Total: \$33,000
Prin. Invest.: K D DIPPERY, S W SMITH
Tech. Officer: LARC/M G GILBERT
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52223 UNIVERSITY OF KENTUCKY 4824
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/10/1999 - 08/23/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: M ROCHE, J MAIN
Tech. Officer: LARC/G C HORNER
CASE Category: 46 - MECHANICAL ENGR

NGT 8 52869 UNIVERSITY OF KENTUCKY 4825
 INVESTIGATING THE EFFECTS OF FOAM INFLATED DEPLOYABLE SPACE-
 CRAFT STRUCTURES
 07/27/1998 - 08/13/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J A MAIN
Tech. Officer: MSFC/J F DOWDY
CASE Category: 46 - MECHANICAL ENGR

NAG 5 5142 UNIVERSITY OF LOUISVILLE 4826
 DEVELOPMENT OF GAS MICROSTRUCTURE DETECTORS FOR GAMMA-
 RAY TELESCOPES
 04/21/1997 - 09/30/1999 FY99: \$0 Total: \$264,284
Prin. Invest.: W PITTS
Tech. Officer: GSFC/H NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6913 UNIVERSITY OF LOUISVILLE 4827
 GENERAL CIRCULATION OF PLANETARY ATMOSPHERES
 01/26/1998 - 12/31/1999 FY99: \$68,000 Total: \$158,000
Prin. Invest.: T E DOWLING
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 8 1509 UNIVERSITY OF LOUISVILLE 4828
 SHORT TERM QUANTITATIVE PRECIPITATION FORECASTING USING MULTI-
 SENSOR REMOTE SENSING AND ETA MODEL
 03/04/1998 - 02/02/2000 FY99: \$50,266 Total: \$99,807
Prin. Invest.: M N FRENCH
Tech. Officer: MSFC/J SIMONDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 261 UNIVERSITY OF LOUISVILLE 4829
 RESEARCH AND DEVELOPMENT ON RAPID DESIGN SYSTEMS FOR AERO-
 SPACE STRUCTURES
 07/18/1997 - 02/08/1999 FY99: \$17,461 Total: \$123,005
Prin. Invest.: H G SCHAEFFER
Tech. Officer: LARC/J M HOUSNER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 7326 WESTERN KENTUCKY UNIVERSITY 4830
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 04/24/1998 - 04/30/1999 FY99: \$0 Total: \$1,497
Prin. Invest.: M CARINI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8383 WESTERN KENTUCKY UNIVERSITY 4831
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 05/26/1999 - 05/31/2000 FY99: \$2,118 Total: \$2,118
Prin. Invest.: M T CARINI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8762 WESTERN KENTUCKY UNIVERSITY 4832
 STARBASE NETWORK
 08/27/1999 - 09/14/2000 FY99: \$1,000,000 Total: \$1,000,000
Prin. Invest.: C H MCGRUDER, 111
Tech. Officer: GSFC/J D ROSENDAHL
CASE Category: 11 - ASTRONOMY

NCC 5 222 WESTERN KENTUCKY UNIVERSITY 4833
 TO SUPPORT THE KENTUCKY NASA EXPERIMENTAL PROGRAM COMPETI-
 TIVE RESEARCH
 08/11/1997 - 06/30/2000 FY99: \$400,000 Total: \$1,400,000
Prin. Invest.: R HACKNEY
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 396 WESTERN KENTUCKY UNIVERSITY 4834
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/13/1999 - 05/31/2000 FY99: \$225,000 Total: \$225,000
Prin. Invest.: R HACKNEY
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCCW 60 WESTERN KENTUCKY UNIVERSITY 4835
 EPSCOR PROGRAM
 06/21/1994 - 12/31/1997 FY99: -\$1,613 Total: \$1,498,387
 Prin. Invest.: R HACKNEY
 Tech. Officer: HQ/L KEEFER, HQ/E T SCHWARTZ
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 3 52353 WESTERN KENTUCKY UNIVERSITY 4836
 SYNTHESIS AND CHARACTERIZATION OF ELECTRON-BEAM CURED AND THERMAL CURED BISMALEIMIDE-TRIAZINE COPOLYMER
 06/24/1999 - 07/31/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: W PAN
 Tech. Officer: GRC/F J MONTEGANI
 CASE Category: 12 - CHEMISTRY

NGT 5 40051 WESTERN KENTUCKY UNIVERSITY 4837
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 01/30/1997 - 02/28/2001 FY99: \$256,250 Total: \$784,034
 Prin. Invest.: R HACKNEY
 Tech. Officer: GSFC/L KEEFER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

LOUISIANA

NAG 8 1010 DILLARD UNIVERSITY 4838
 JOVE
 11/19/1993 - 04/30/1999 FY99: \$19,206 Total: \$104,629
 Prin. Invest.: G ROCHON, G LOVE
 Tech. Officer: MSFC/F SIX
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 8 1392 GRAMBLING STATE UNIVERSITY 4839
 R/S "NLO POLYMERS THAT HAVE ENHANCED THERMAL STABILITY AND LOW ALIGNMENT DECAY"
 07/23/1997 - 08/17/2000 FY99: \$178,884 Total: \$278,844
 Prin. Invest.: C WALTON
 Tech. Officer: MSFC/B PENN
 CASE Category: 11 - ASTRONOMY

NCC 3 512 GRAMBLING STATE UNIVERSITY 4840
 POLYMERIZABLE MONOMER REACTANTS-MODIFIED POLYIMIDES
 11/04/1996 - 07/27/2000 FY99: \$111,457 Total: \$211,457
 Prin. Invest.: D E HUBBARD
 Tech. Officer: GRC/M A MEADOR
 CASE Category: 12 - CHEMISTRY

NAG 2 1020 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4841
 DEVELOPMENTAL ANALYSIS OF SEEDS GROWN ON MIR
 01/18/1996 - 11/30/1999 FY99: \$0 Total: \$371,575
 Prin. Invest.: M E MUSGRAVE
 Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1212 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4842
 PARALLEL MOLECULAR DYNAMICS SIMULATIONS OF ATOMIC NANOSTRUC-
 TURES ON SILICON & DIAMOND SURFACES
 05/01/1998 - 09/30/1998 FY99: \$0 Total: \$30,000
 Prin. Invest.: R KALIA, P VASHISTA
 Tech. Officer: ARC/S SAINI
 CASE Category: 13 - PHYSICS

NAG 2 1248 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4843
 SCALABLE ALGORITHMS FOR COMPUTATIONAL NANO-ELECTRONICS ON
 THE INFORMATION POWER GRID
 08/10/1998 - 10/31/1998 FY99: \$0 Total: \$95,000
 Prin. Invest.: A NAKANO
 Tech. Officer: ARC/S SAINI
 CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1318 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4844
 PARALLEL MULTISCALE ALGORITHMS FOR VIRTUAL DESIGN OF NANO-
 ELECTRO-MECHANICAL SYSTEMS
 04/16/1999 - 03/31/2000 FY99: \$30,000 Total: \$30,000
 Prin. Invest.: R K KALIA
 Tech. Officer: ARC/S SAINI
 CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1320 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4845
 A RADAPPERTIZATION PROTOCOL FOR SAMPLES RETURNED TO EARTH
 FROM MARS
 05/10/1999 - 10/14/1999 FY99: \$29,400 Total: \$29,400
 Prin. Invest.: J R BATTISTA
 Tech. Officer: ARC/D L DEVINCENZI
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 3 1641 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4846
 LARGE EDDY SIMULATIONS IMPROVED TURBULENCE MODELING OF FILM
 COOLING
 07/12/1994 - 09/30/1998 FY99: -\$3,095 Total: \$246,436
 Prin. Invest.: S ACHARYA
 Tech. Officer: GRC/J R SCHWAB
 CASE Category: 41 - AERONAUTICAL ENGINEERING

NAG 5 3082 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4847
 ACCRETION ONTO MAGNETIC DEGENERATE STARS
 09/22/1995 - 09/30/1999 FY99: \$0 Total: \$173,943
 Prin. Invest.: G CHANMUGAM
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3338 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4848
 UNDERSTANDING THE EVOLUTION OF H-DEFICIENT STARS
 11/13/1996 - 11/14/1998 FY99: \$0 Total: \$39,800
 Prin. Invest.: G C CLAYTON
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3531 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4849
 DO WE NEED REALISTIC MODELING OF COMPOSITE INTERSTELLAR DUST
 GRAINS
 11/15/1996 - 11/14/1998 FY99: \$0 Total: \$148,000
 Prin. Invest.: G C CLAYTON
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3756 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4850
 MICROGRAVITY EFFECTS ON EARLY REPRODUCTIVE DEVELOPMENT
 12/05/1996 - 09/30/1998 FY99: \$0 Total: \$63,157
 Prin. Invest.: M A MUSGRAVE
 Tech. Officer: GSFC/V S SCHNEIDER
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3770 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4851
 ADVANCED CALORIMETER FOR COMPOSITION OF ELEMENTS ACCESS
 TO STUDY > 10 TEV COSMIC RAYS
 03/07/1997 - 01/31/1999 FY99: \$0 Total: \$65,736
 Prin. Invest.: D P WEFEL
 Tech. Officer: GSFC/R HOWARD
 CASE Category: 13 - PHYSICS

NAG 5 4154 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4852
 A SPDS NODE TO SUPPORT THE SYSTEMATIC INTERPRETATION
 03/17/1997 - 08/31/1998 FY99: \$0 Total: \$18,441
 Prin. Invest.: D G GUZIK
 Tech. Officer: GSFC/J WILLETT
 CASE Category: 13 - PHYSICS

NAG 5 5064 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4853
 THE ADVANCED THIN IONIZATION CALORIMETER (ATIC) BALLOON EXPERIMENT
 05/03/1996 - 12/01/1999 FY99: \$567,000 Total: \$2,018,000
 Prin. Invest.: J P WEFEL
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 5127 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4854
 MINUTE OF ARC RESOLUTION GAMMA-RAY IMAGING EXPERIMENT (MARGIE)
 07/02/1997 - 09/30/1999 FY99: \$0 Total: \$100,000
 Prin. Invest.: M CHERRY
 Tech. Officer: GSFC/H NEEDLEMAN
 CASE Category: 13 - PHYSICS

NAG 5 5177 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4855
 TRANSITION RADIATION DETECTORS FOR HIGH ENERGY MEASUREMENTS
 ON ACCESS
 04/24/1998 - 03/31/2000 FY99: \$114,000 Total: \$214,000
 Prin. Invest.: M L CHERRY
 Tech. Officer: GSFC/B A MERRITT
 CASE Category: 13 - PHYSICS

NAG 5 5208 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4856
 ULTRA-LONG DURATION MISSION CONCEPT FOR PROPOSAL FOR A MINUTE-OF-ARC RESOLUTION GAMMA-RAY EXPERIMENT
 09/24/1998 - 11/30/1999 FY99: \$110,570 Total: \$110,570
 Prin. Invest.: M CHERRY
 Tech. Officer: WFF/B A MERRITT
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7355 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4857
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 04/29/1998 - 01/14/2000 FY99: \$0 Total: \$2,500
 Prin. Invest.: J STACY
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7933 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4858
 EXTRAGALACTIC INTERSTELLAR DUST (LTSA - NEW)
 12/14/1998 - 12/31/1999 FY99: \$72,866 Total: \$72,866
 Prin. Invest.: G C CLAYTON
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8100 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4859
 A SURVEY OF ACTIVE GALAXIES AND HIGH-LATITUDE GAMMA-RAY
 SOURCES USING COMPTEL ALL-SKY MAXIMUM-LIKELIHOOD
 01/25/1999 - 01/31/2000 FY99: \$7,500 Total: \$7,500
 Prin. Invest.: J STACY
 Tech. Officer: GSFC/J NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 8497 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4860
 NUMERICAL HYDRODYNAMICS OF MASS-TRANSFERING BINARIES (ATP-98)
 05/18/1999 - 04/30/2000 FY99: \$60,000 Total: \$60,000
 Prin. Invest.: J FRANK
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 8 1048 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4861
 ULTRAVIOLET EXTINCTION AND POLARIZATION OF INTERSTELLAR DUST
 IN THE LARGE MAGELLANIC CLOUD
 03/15/1994 - 05/31/1999 FY99: \$23,657 Total: \$151,299
 Prin. Invest.: G C CLAYTON, J GREEN
 Tech. Officer: MSFC/J OWENS
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 860 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4862
 ASTROCULTURE METABOLISM AND ULTRASTRUCTURE ANALYSIS
 01/31/1996 - 08/11/1998 FY99: \$0 Total: \$10,010
 Prin. Invest.: D MUSGRAVE, D PORTERFIELD
 Tech. Officer: JSC/D J BARTA
 CASE Category: 55 - AGRICULTURE

NAG10 139 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4863
 PLANT REPRODUCTIVE DEVELOPMENT IN MICROGRAVITY
 06/07/1994 - 12/15/1999 FY99: \$0 Total: \$527,508
 Prin. Invest.: M E MUSGRAVE
 Tech. Officer: KSC/W M KNOTT
 CASE Category: 55 - AGRICULTURE

NCC 2 5320 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4864
 SCALABLE SIMULATION& DATA MANAGEMENT FOR COMPUTATIONAL
 NANOELECTRONICS ON THE INFORMATION POWER GRID
 05/10/1999 - 03/31/2000 FY99: \$95,000 Total: \$95,000
 Prin. Invest.: A NAKANO
 Tech. Officer: ARC/S SAINI
 CASE Category: 22 - COMPUTER SCIENCE

NCC 5 167 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4865
 NASA EPSCOR PROGRAM
 11/02/1996 - 05/31/2000 FY99: \$400,000 Total: \$1,900,000
 Prin. Invest.: J P WEFEL
 Tech. Officer: GSFC/D DETROYE
 CASE Category: 99 - MULTI INTERDISCIPLINARY, OTHER

NCC 5 393 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4866
 NASA EPSCOR PREPARATION PROGRAM
 05/13/1999 - 08/14/2000 FY99: \$225,000 Total: \$225,000
 Prin. Invest.: J WEFEL
 Tech. Officer: HQ/D DETROYE
 CASE Category: 99 - MULTI INTERDISCIPLINARY, OTHER

NGT 5 40035 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4867
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIPPROGRAM.
 02/13/1997 - 02/28/2000 FY99: \$256,250 Total: \$717,500
Prin. Invest.: J P WEFEL
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2136 LOUISIANA TECH UNIVERSITY 4868
 IMPLICIT AND MULTIGRID METHOD FOR IDEAL MULTIGRID CONVERGENCE
 01/15/1999 - 06/30/1999 FY99: \$10,000 Total: \$10,000
Prin. Invest.: C LIU
Tech. Officer: LARC/R SWANSON
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 471 MCNEESE STATE UNIVERSITY 4869
 SUPPORT OF AIRS AND MIM FOR ISOLATION OF SPACE SCI ENCE EXP:
 DYNAMIC MODELING, OPTIMAL CONTROLLER SY
 05/01/1996 - 08/24/1998 FY99: \$1,141 Total: \$72,405
Prin. Invest.: D HAMPTON
Tech. Officer: GRC/D M GRODSINSKY
CASE Category: 46 - MECHANICAL ENGR

NAG 5 4293 NORTHEAST LOUISIANA UNIVERSITY 4870
 ANCIENT CRUST AND LACUSTRINE PLAIN SITES FOR MARS
 04/18/1997 - 03/31/2001 FY99: \$0 Total: \$30,000
Prin. Invest.: D A DE HON
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 8 1206 SOUTHEASTERN LOUISIANA UNIVERSITY 4871
 JOVE
 09/25/1995 - 08/31/1999 FY99: -\$4,435 Total: \$106,185
Prin. Invest.: W A PARKISON, W N NORTON, W N NORTON
Tech. Officer: MSFC/J F DOWDY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 2 1006 SOUTHERN UNIV & A&M COLLEGE 4872
 QFT DESIGN FRAMEWORK FOR ROTORCRAFT CONTROL
 08/25/1995 - 11/30/1998 FY99: \$0 Total: \$199,942
Prin. Invest.: L LAWSON
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1015 SOUTHERN UNIV & A&M COLLEGE 4873
 LEARNING & GENERALIZATION USING NEURAL NETWORKS WI TH
 APPLICATIONS TO ON-LINE F-16 REFERENCE MODEL
 09/22/1995 - 07/31/1999 FY99: \$0 Total: \$299,988
Prin. Invest.: S K TRIVEDI, J P MCGUIRK
Tech. Officer: ARC/A J HATCH, ARC/S P COLOMBANO
CASE Category: 43 - CHEMICAL ENGR

NAG 2 1159 SOUTHERN UNIV & A&M COLLEGE 4874
 AIR TRAFFIC CONTROL USING NEURAL NETWORKS
 08/25/1997 - 03/31/2000 FY99: \$102,000 Total: \$204,000
Prin. Invest.: S K TRIVEDI
Tech. Officer: ARC/G S LEE
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1162 SOUTHERN UNIV & A&M COLLEGE 4875
 A PROPOSAL TO DEVELOP INTERACTIVE CLASSIFICATION T ECHNOLOGY
 09/17/1997 - 09/14/1998 FY99: \$0 Total: \$96,028
Prin. Invest.: C DEBASSONET
Tech. Officer: ARC/R R DAPICE
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1273 SOUTHERN UNIV & A&M COLLEGE 4876
 INTERACTIVE CLASSIFICATION TECHNOLOGY
 12/29/1998 - 12/31/1999 FY99: \$96,239 Total: \$96,239
Prin. Invest.: C DEBESSONET
Tech. Officer: ARC/P NORVIG
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 1662 SOUTHERN UNIV & A&M COLLEGE 4877
 INTELLIGENT KNOWLEDGE ACQUISITION FOR INTERACTIVE SOFTWARE
 FOR ROCKET ENGINE SYSTEM DESIGN
 09/16/1994 - 12/31/1997 FY99: -\$26,490 Total: \$248,511
Prin. Invest.: D MOREMAN
Tech. Officer: GRC/D F NOGA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1825 SOUTHERN UNIV & A&M COLLEGE 4878
 DEVELOPMENT OF INTEGRATED METHODOLOGY FOR ENGINE C
 OMPNENT DESIGN AND DESIGN OPTIMIZATION
 04/17/1996 - 06/30/2000 FY99: \$67,000 Total: \$360,000
Prin. Invest.: R A MIRSHAMS, B Q LI
Tech. Officer: GRC/L BERKE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2076 SOUTHERN UNIV & A&M COLLEGE 4879
 KNOWLEDGE PRESERVATION FOR DESIGN OF ROCKET SYSTEM S
 09/26/1997 - 10/31/1999 FY99: \$0 Total: \$100,000
Prin. Invest.: D MOREMAN, J DYER
Tech. Officer: GRC/D F NOGA
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 3660 SOUTHERN UNIV & A&M COLLEGE 4880
 EFFECTS OF AEROSOLS AND CLOUDS INTERACTION ON UV, PAR, AND
 CROP YIELDS
 11/15/1996 - 11/14/1999 FY99: \$99,999 Total: \$299,976
Prin. Invest.: C H YANG
Tech. Officer: GSFC/A DOUGLAS
CASE Category: 13 - PHYSICS

NAG 5 5066 SOUTHERN UNIV & A&M COLLEGE 4881
 THE ADVANCED THIN IONIZATION CALORIMETER (ATIC) BALLOON EXPERI-
 MENT
 06/17/1996 - 12/31/1999 FY99: \$20,000 Total: \$385,000
Prin. Invest.: A R FAZELY
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 7157 SOUTHERN UNIV & A&M COLLEGE 4882
 DEVELOPMENT OF BALLOON-BORNE X-RAY/GAMMA DETECTORS FOR
 STUDIES OF HIGH ENERGY ASTROPHYSICAL SOURCE
 03/11/1998 - 02/29/2000 FY99: \$99,220 Total: \$198,440
Prin. Invest.: J STACY
Tech. Officer: GSFC/J TUELLER
CASE Category: 13 - PHYSICS

<p>NAG 5 8552 SOUTHERN UNIV & A&M COLLEGE 4883 PROGRAM TO INCREASE THE PURSUIT OF EDUCATION AND LEARNING IN ENGINEERING AND SCIENCE 06/15/1999 - 05/31/2000 FY99: \$1,000,000 Total: \$1,000,000 Prin. Invest.: D BAGAYOKO Tech. Officer: GSFC/B WHITE CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p>NAG10 171 SOUTHERN UNIV & A&M COLLEGE 4891 DEVELOPMENT AND UTILIZATION OF A MULTIPURPOSE ATMOSPHERIC CORROSION SENSOR 06/15/1995 - 10/15/1998 FY99: -\$3,407 Total: \$311,578 Prin. Invest.: R DIWAN Tech. Officer: KSC/R LEE, KSC/K POIMBOEUF CASE Category: 54 - ENVIRONMENTAL BIOLOGY</p>
<p>NAG 8 1495 SOUTHERN UNIV & A&M COLLEGE 4884 RELATIONSHIP BETWEEN STRUCTURE AND MAGNETIC AND ELECTRON TRANSPORT PROPERTIES IN R1-AXMN03 06/01/1998 - 05/31/2001 FY99: \$70,797 Total: \$168,095 Prin. Invest.: H L LAWRENCE Tech. Officer: MSFC/D SCHMIDT CASE Category: 13 - PHYSICS</p>	<p>NAG10 182 SOUTHERN UNIV & A&M COLLEGE 4892 FRACTOGRAPHIC STUDIES & ANALYSES IN DATA BASE DOCUMENTATION & DEVELOPMENT 01/11/1996 - 08/10/1999 FY99: \$0 Total: \$200,000 Prin. Invest.: R M DIVWAN Tech. Officer: KSC/R LEE CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p>NAG 8 1536 SOUTHERN UNIV & A&M COLLEGE 4885 MODELING AND ANALYSIS OF HEAT-ACTIVATED THERMAL COUPLES 06/08/1998 - 06/30/2001 FY99: \$99,858 Total: \$198,792 Prin. Invest.: M A STUNNLEFIELD Tech. Officer: MSFC/G GORDON CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p>NAG10 210 SOUTHERN UNIV & A&M COLLEGE 4893 RESEARCH & EDUCATION EXPERIENCES FOR MINORITY UNDERGRAD- UATES IN COMPOSITE MATERIAL 09/01/1997 - 08/31/2000 FY99: \$150,000 Total: \$400,000 Prin. Invest.: S S CHEHL Tech. Officer: KSC/S MCDANIELS CASE Category: 49 - ENGINEERING, OTHER</p>
<p>NAG 8 1625 SOUTHERN UNIV & A&M COLLEGE 4886 FIBERGLAST INSTRUMENT DEVELOPMENT 09/22/1999 - 08/31/2001 FY99: \$99,510 Total: \$99,510 Prin. Invest.: J G STACY Tech. Officer: MSFC/G J FISHMAN CASE Category: 59 - LIFE SCIENCE, OTHER</p>	<p>NAG13 98003 SOUTHERN UNIV & A&M COLLEGE 4894 NOISE REMOVAL DECONVOLUTION AND VIBRATION RELAXATION STUDIES TO ENHANCE PLUME DIAGNOSTIC TECH. 03/11/1998 - 05/14/2000 FY99: \$99,924 Total: \$199,848 Prin. Invest.: A AMINI Tech. Officer: SSC/B B ST. CYR CASE Category: 49 - ENGINEERING, OTHER</p>
<p>NAG 8 1627 SOUTHERN UNIV & A&M COLLEGE 4887 EDUCATION GRANT "AN INTEGRATED THEORY AND LAB LEARNING EXPERIENCE 09/09/1999 - 09/11/2001 FY99: \$100,000 Total: \$100,000 Prin. Invest.: L L LAURENCE Tech. Officer: MSFC/W J LOVE, MSFC/A C BEAM CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p>NAG13 98013 SOUTHERN UNIV & A&M COLLEGE 4895 MATHEMATICS AND SCIENCE ENRICHMENT ACTIVITIES FOR MIDDLE AND HIGH SCHOOL STUDENTS 07/15/1998 - 07/14/2001 FY99: \$100,000 Total: \$200,000 Prin. Invest.: M SUBBLEFIELD Tech. Officer: SSC/A JOYCE CASE Category: 21 - MATHEMATICS</p>
<p>NAG 8 1633 SOUTHERN UNIV & A&M COLLEGE 4888 VIRTUAL REALITY INNOVATIONS IN TRAINING AND SCIENCE, ENGINEERING AND MATHEMATICS EDUCATION. 09/15/1999 - 07/31/2000 FY99: \$99,354 Total: \$99,354 Prin. Invest.: M C DUNN Tech. Officer: MSFC/A BEAM, MSFC/W LOVE CASE Category: 21 - MATHEMATICS</p>	<p>NCC 8 138 SOUTHERN UNIV & A&M COLLEGE 4896 RESEARCH "COMPOSITE TRUSS DESIGN OPTIMIZATION" 07/15/1997 - 07/14/1999 FY99: \$0 Total: \$331,966 Prin. Invest.: C WANG Tech. Officer: MSFC/D FORD CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p>NAGW 3882 SOUTHERN UNIV & A&M COLLEGE 4889 NAGW3882/B SOUTHERN UNIV. 36-MONTH MULTI YR AWARD 03/15/1994 - 09/16/1998 FY99: \$0 Total: \$2,762,784 Prin. Invest.: V T MONTGOMERY, S S CHEHL Tech. Officer: HQ/I M BLANKSON CASE Category: 41 - AERONAUTICAL ENGR</p>	<p>NCC 8 156 SOUTHERN UNIV & A&M COLLEGE 4897 FOR RESEARCH ENTITLED: "STRUCTURAL MATERIALS FAILURE ANALYSIS DATABASE" 09/28/1998 - 09/27/2000 FY99: \$35,000 Total: \$85,000 Prin. Invest.: J DYER Tech. Officer: MSFC/G JERMAN CASE Category: 29 - MATH/COMPUTER SCI, OTHER</p>
<p>NAGW 4013 SOUTHERN UNIV & A&M COLLEGE 4890 SPACE COMMUNICATION & INFO RESEARCH: IMPROVED SPACE LINK PER- FORMANCE VIA CONCATENATED FORWARD-ERROR 06/10/1994 - 12/31/1997 FY99: \$0 Total: \$500,000 Prin. Invest.: E W HINDS Tech. Officer: HQ/H L THEISS CASE Category: 22 - COMPUTER SCIENCE</p>	<p>NGT 5 90015 SOUTHERN UNIV & A&M COLLEGE 4898 UNDERGRADUATE SCHOLAR AWARDS FOR RESEARCH (USAR) 12/16/1996 - 12/31/1998 FY99: \$0 Total: \$120,000 Prin. Invest.: D BAGAYOKO Tech. Officer: GSFC/R LAWRENCE CASE Category: 13 - PHYSICS</p>

NGT13 52720 SOUTHERN UNIV & A&M COLLEGE 4899
 1999 NASA/ASEE SUMMER FACILITY FELLOWSHIP PROGRAM AT STENNIS
 SPACE CENTER
 04/01/1999 - 04/01/2000 FY99: \$205,000 Total: \$205,000
Prin. Invest.: E HILDRETH
Tech. Officer: SSC/A JOYCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 52 SOUTHERN UNIVERSITY - NEW ORLEANS 4900
 NASA/SUNO PARTNERSHIP FOR EXCELLENCE IN MATH & SCIENCE EDUCATION
 06/30/1997 - 12/31/1999 FY99: \$81,032 Total: \$387,137
Prin. Invest.: P HEATH, R PERRY
Tech. Officer: JSC/N SULLIVAN
CASE Category: 21 - MATHEMATICS

NAG 2 999 TULANE UNIVERSITY 4901
 EFFECT OF MICROGRAVITY ON AFFERENT INNEVATION
 08/16/1995 - 03/31/1998 FY99: -\$1,328 Total: \$190,247
Prin. Invest.: C D FERMIN
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1378 TULANE UNIVERSITY 4902
 EFFECT OF SIMULATED MICROGRAVITY ON GENE EXPRESSION IN THE
 ENTERIC PATHOGEN SALMONELLA TYPHIMURIUM
 08/19/1999 - 12/31/1999 FY99: \$81,000 Total: \$81,000
Prin. Invest.: C A NICKERSON
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 8570 TULANE UNIVERSITY 4903
 ADVANCED METHODS FOR STORAGE AND RETRIEVAL IN IMAGE DATABASES
 05/24/1999 - 05/31/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: C KOUTSOUGERAS
Tech. Officer: GSFC/K MOE
CASE Category: 22 - COMPUTER SCIENCE

NAG 8 1362 TULANE UNIVERSITY 4904
 FOR RESEARCH—PRODUCTION OF 125 DIOD 3 BY RENAL EPITHELIAL
 CELLS IN SIMULATED MICROGRAVITY CULTURE
 06/18/1997 - 11/30/2000 FY99: \$208,000 Total: \$474,000
Prin. Invest.: T HAMMOND
Tech. Officer: JSC/S R GONDA
CASE Category: 56 - MEDICAL

NAG 9 811 TULANE UNIVERSITY 4905
 DIFFERENTIATION OF NORMAL HUMAN RENAL EPITHELIAL CELLS IN
 MICROGRAVITY
 03/08/1996 - 09/17/1999 FY99: \$0 Total: \$766,000
Prin. Invest.: D HAMMOND
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 826 TULANE UNIVERSITY 4906
 CELL CULTIVATION
 08/09/1995 - 02/15/2000 FY99: \$0 Total: \$424,000
Prin. Invest.: K O'CONNOR
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5011 TULANE UNIVERSITY 4907
 CONSTRUCTION OF A SPECIALIZED CLONING STRAIN OF E COLI FOR THE
 NITRATE REDUCTASE GENES OF HALOFERAX
 11/24/1993 - 11/30/1998 FY99: \$0 Total: \$29,700
Prin. Invest.: E J JOHNSON
Tech. Officer: ARC/A POHORILLE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT13 52717 TULANE UNIVERSITY 4908
 EFFECTS OF ULTRAVIOLET RADIATION ON THE COMPOSITION AND
 MICROBIAL UTILIZATION
 07/13/1998 - 07/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: E ENGELHAUT, NONE
Tech. Officer: SSC/A JOYCE
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 3 1906 UNIVERSITY OF NEW ORLEANS 4909
 GROWTH AND MORPHOLOGY OF PHASE SEPARATING SUPERCRITICAL
 FLUIDS
 06/10/1996 - 06/09/2000 FY99: \$127,000 Total: \$474,998
Prin. Invest.: J P DROSKE
Tech. Officer: GRC/W B ALSTON
CASE Category: 12 - CHEMISTRY

NAG 3 1915 UNIVERSITY OF NEW ORLEANS 4910
 A GEOPHYSICAL FLOW EXPERIMENT IN A COMPRESSIBLE CRITICAL FLUID
 07/16/1996 - 07/17/1999 FY99: \$0 Total: \$140,000
Prin. Invest.: J HEGSETH
Tech. Officer: GRC/R A WILKINSON
CASE Category: 13 - PHYSICS

NAG 5 6165 UNIVERSITY OF NEW ORLEANS 4911
 PLANET EARTH WORKSHOPS FOR TEACHERS OF PHYSICAL SCIENCE
 08/19/1997 - 04/30/1999 FY99: \$0 Total: \$10,700
Prin. Invest.: J J SULLIVAN
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

NAG 5 6578 UNIVERSITY OF NEW ORLEANS 4912
 IMAGE ANALYSIS ENHANCEMENT FOR ADVANCED ENVIRONMENTAL AND
 LAND USE STUDY AT THE UNIVERSITY OF NEW ORLEANS
 12/15/1997 - 11/30/1998 FY99: -\$1,027 Total: \$97,135
Prin. Invest.: M JOHNSON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

NAG 8 1116 UNIVERSITY OF NEW ORLEANS 4913
 JOVE
 01/10/1995 - 05/31/2000 FY99: \$20,000 Total: \$143,964
Prin. Invest.: J J HEGSETH, M L JOHNSON, J J HOWARD
Tech. Officer: MSFC/F SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT13 52706 UNIVERSITY OF NEW ORLEANS 4914
 THE APPLICATION OF THE NONCLASSICAL DYNAMICAL THEORY OF
 THERMO-ELASTICITY OF THE COOLING TANK
 05/23/1996 - 12/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: D PURI
Tech. Officer: SSC/D JOYCE
CASE Category: 41 - AERONAUTICAL ENGINEERING

NGT13 52711 UNIVERSITY OF NEW ORLEANS 4915
 GRADUATE STUDENT PROGRAM-ANALYSIS OF HYDROGEN FLARE STACKS
 07/22/1997 - 07/21/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: E RUSSO
Tech. Officer: JSC/A JOYCE
CASE Category: 41 - AERONAUTICAL ENGR

NGT13 52714 UNIVERSITY OF NEW ORLEANS 4916
 DIONNEI-MELISSA DEBOSE/USING SINDA/FLUINT TO DEVELOP COMPUTER MODEL APPLICATIONS FOR SSC
 10/09/1997 - 07/31/2000 FY99: \$22,000 Total: \$55,000
Prin. Invest.: E RUSSO
Tech. Officer: SSC/A JOYCE
CASE Category: 22 - COMPUTER SCIENCE

NGT13 52719 UNIVERSITY OF NEW ORLEANS 4917
 THERMAL AND MECHANICAL ANALYSIS OF HYDROGEN TRANSFER VALVES
 07/13/1998 - 07/31/2000 FY99: \$88,000 Total: \$110,000
Prin. Invest.: Y TRAYHAM
Tech. Officer: SSC/A JOYCE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 2842 UNIVERSITY OF SOUTHWESTERN LOUISIANA 4918
 INTELLIGENT INFORMATION FUSION AND MANAGEMENT PROTOTYPE APPLICABLE TO EOSDIS
 12/14/1994 - 12/31/1999 FY99: \$0 Total: \$155,000
Prin. Invest.: N PISSINOU
Tech. Officer: GSFC/W CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 7127 UNIVERSITY OF SOUTHWESTERN LOUISIANA 4919
 REACTIVE INFORMATION FUSION APPLICABLE TO NASA'S REGIONAL APPLICATION CENTER PROJECT
 03/02/1998 - 02/29/2000 FY99: \$0 Total: \$75,000
Prin. Invest.: D PISSINOU
Tech. Officer: GSFC/W CAMPBELL
CASE Category: 22 - COMPUTER SCIENCE

NAG10 190 UNIVERSITY OF SOUTHWESTERN LOUISIANA 4920
 RESPONSE SYSTEM OF PLANTS
 03/25/1996 - 10/31/1999 FY99: \$105,000 Total: \$331,858
Prin. Invest.: K H HASENSTEIN
Tech. Officer: KSC/W M KNOTT
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3512 XAVIER UNIVERSITY - LOUISIANA 4921
 MASTAP AWARD PROJECT TEACH
 01/24/1997 - 06/30/1998 FY99: \$0 Total: \$356,000
Prin. Invest.: E E EDUOK
Tech. Officer: GSFC/M MATEU
CASE Category: 12 - CHEMISTRY

NAG 8 1609 XAVIER UNIVERSITY - LOUISIANA 4922
 "TEACHER AND CURRICULUM ENHANCEMENT PROGRAM"
 05/25/1999 - 05/24/2002 FY99: \$200,000 Total: \$200,000
Prin. Invest.: R P HALE
Tech. Officer: MSFC/W LOVE
CASE Category: 21 - MATHEMATICS

NAG13 53 XAVIER UNIVERSITY - LOUISIANA 4923
 PROJECT KAIZEN SAME
 06/19/1997 - 06/17/2000 FY99: \$76,891 Total: \$376,871
Prin. Invest.: R P HALE
Tech. Officer: SSC/N SULLIVAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 98006 XAVIER UNIVERSITY - LOUISIANA 4924
 SEEING THE EARTH: USING REMOTE SENSING TECHNOLOGIES TO STIMULATE IMAGINATION OF STUDENTS
 04/20/1998 - 04/19/2000 FY99: \$100,000 Total: \$200,000
Prin. Invest.: S O'CONNOR
Tech. Officer: JSC/A JOYCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90084 XAVIER UNIVERSITY - LOUISIANA 4925
 SOAR 2 SUMMER BRIDGE PROGRAM
 09/09/1997 - 04/30/2000 FY99: \$151,175 Total: \$438,848
Prin. Invest.: G BAKER
Tech. Officer: GSFC/L RANDOLPH
CASE Category: 49 - ENGINEERING, OTHER

MAINE

NAG 5 6002 UNIVERSITY OF MAINE - ORONO 4926
 SOILS, WATER, PEOPLE, AND PIXELS: A STUDY OF NANG
 09/11/1997 - 01/14/2000 FY99: \$0 Total: \$498,743
Prin. Invest.: R RINDFUSS
Tech. Officer: HQ/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6041 UNIVERSITY OF MAINE - ORONO 4927
 TIME-SERIES FOREST CHANGE, LAND-COVER/LAND-USE AND ECONOMIC DRIVING FORCES IN THE NORTHERN PENINSULA
 07/23/1997 - 07/31/2000 FY99: \$21,750 Total: \$232,000
Prin. Invest.: S SADER
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6558 UNIVERSITY OF MAINE - ORONO 4928
 BIOLOGICAL-PHYSICAL COUPLING IN THE GULF OF MAINE: SATELLITE AND MODEL STUDIES IN PHYTOPLANKTON
 10/27/1997 - 10/31/2000 FY99: \$30,000 Total: \$261,514
Prin. Invest.: A THOMAS
Tech. Officer: GSFC/J YODER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6604 UNIVERSITY OF MAINE - ORONO 4929
 PHYTOPLANKTON VARIABILITY IN EASTERN BOUNDARY CURRENTS: CONNECTIONS TO PHYSICAL FORCING
 12/11/1997 - 11/30/1999 FY99: \$129,012 Total: \$251,998
Prin. Invest.: A THOMAS
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6672 UNIVERSITY OF MAINE - ORONO 4930
 UNIVERSITY OF MAINE: CENTER OF EXCELLENCE IN REMOTE SENSING APPLICATIONS
 12/16/1997 - 09/30/1998 FY99: \$0 Total: \$247,868
Prin. Invest.: S A SADER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8712 UNIVERSITY OF MAINE - ORONO 4931
 MONITORING THE MESOAMERICAN BIOLOGICAL CORRIDOR
 07/26/1999 - 05/31/2000 FY99: \$90,036 Total: \$90,036
Prin. Invest.: S A SADER
Tech. Officer: GSFC/J RANSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4410 UNIVERSITY OF MAINE - ORONO 4932
 SOLID STATE SENSOR FOR AERONAUTICAL AND SPACE APPLICATION
 04/14/1995 - 03/01/1998 FY99: -\$1,016 Total: \$73,984
Prin. Invest.: D J DWYER
Tech. Officer: HQ/A S MCGEE, HQ/E T SCHWARTZ
CASE Category: 49 - ENGINEERING, OTHER

NAG13 98008 UNIVERSITY OF MAINE - ORONO 4933
 FOREST MONITORING AND MULTISENSOR RESEARCH IN MAINE'S INDUSTRIAL FOREST
 04/30/1998 - 04/29/2001 FY99: \$83,334 Total: \$250,000
Prin. Invest.: S SADER
Tech. Officer: JSC/B GRAHAM
CASE Category: 55 - AGRICULTURE

NAG 8 1219 UNIVERSITY OF NEW ENGLAND 4934
 JOVE
 11/30/1995 - 03/31/1999 FY99: \$0 Total: \$81,000
Prin. Invest.: S I ZEEMAN
Tech. Officer: MSFC/D SIX
CASE Category: 33 - OCEANOGRAPHY

MARYLAND

NAG 5 2829 BOWIE STATE UNIVERSITY 4935
 MODEL-BASED VQ FOR MULTISPECTRAL EARTH IMAGE DATA COMPRESSION
 12/14/1994 - 12/31/1999 FY99: \$10,000 Total: \$164,231
Prin. Invest.: M MAREBOYANA
Tech. Officer: GSFC/W CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 2941 BOWIE STATE UNIVERSITY 4936
 SUMMER INSTITUTE IN ENGINEERING & COMPUTER APPLICATIONS (SIECA) PROGRAM
 05/22/1995 - 05/31/1999 FY99: \$0 Total: \$534,963
Prin. Invest.: J LANGDON
Tech. Officer: GSFC/D MENCHAN
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6476 BOWIE STATE UNIVERSITY 4937
 ASSESSING THE IMPACT OF EXPANDING URBAN LAND USE ON AGRICULTURAL PRODUCTIVITY USING REMOTE SENSING
 12/08/1997 - 12/14/1999 FY99: \$204,525 Total: \$471,184
Prin. Invest.: W LAWRENCE
Prin. Invest.: NONE
Tech. Officer: GSFC/M IMHOFF
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7225 BOWIE STATE UNIVERSITY 4938
 SIECA IS A PROGRAM FOR COLLEGE INTERNS.
 04/09/1998 - 06/14/2000 FY99: \$205,091 Total: \$386,129
Prin. Invest.: J LANGDON
Tech. Officer: GSFC/D MENCHAN
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 7658 BOWIE STATE UNIVERSITY 4939
 A VIRTUAL DATA VISUALIZATION AND ANALYSIS DISTRIBUTION SYSTEM: CINEMATOGRAPHY OF SCIENCE
 09/09/1998 - 02/14/2000 FY99: \$10,000 Total: \$25,000
Prin. Invest.: J M CAVALLO
Tech. Officer: GSFC/J D BENNETT
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 7669 BOWIE STATE UNIVERSITY 4940
 SUPPORT FOR DATA ANALYSIS, PRESENTATION, FIELD & MEETING TRAVEL NASA/DOD/LEGACY CENTRAL AMERICA DEPL
 09/28/1998 - 09/30/2000 FY99: \$26,957 Total: \$163,957
Prin. Invest.: W LAWRENCE
Prin. Invest.: NONE
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8370 BOWIE STATE UNIVERSITY 4941
 A FAST TRACK PLAN TOWARD TEACHER CERTIFICATION FOR THE PUBLIC SCHOOLS SYSTEM OF PRINCE GEORGE'S C
 03/12/1999 - 02/29/2000 FY99: \$200,000 Total: \$200,000
Prin. Invest.: D W CRIM
Tech. Officer: GSFC/D MENCHAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8787 BOWIE STATE UNIVERSITY 4942
 TRAINING UNDERGRADUATES IN SPACE SCIENCE AND SATELLITE OPERATION AND TECHNOLOGY
 08/31/1999 - 08/31/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: N WAKIM
Tech. Officer: GSFC/P CROUSE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 145 BOWIE STATE UNIVERSITY 4943
 AUTOMATION OF SCHEDULING OF ORBIT DETERMINATION PROGRAMS
 07/30/1996 - 06/30/1999 FY99: \$0 Total: \$308,838
Prin. Invest.: P C CHI
Tech. Officer: GSFC/D A WEIDOW, GSFC/J R SPARMO
CASE Category: 11 - ASTRONOMY

NCC 5 201 BOWIE STATE UNIVERSITY 4944
 BOWIE STATE'S SATELLITE OPERATIONS AND CONTROL CENTER
 06/27/1997 - 08/31/1999 FY99: \$100,000 Total: \$400,000
Prin. Invest.: N T WAKIM
Tech. Officer: GSFC/L GATTO
CASE Category: 49 - ENGINEERING, OTHER

NCC 5 232 BOWIE STATE UNIVERSITY 4945
 MODEL INSTITUTIONS FOR EXCELLENCE - PERIOD OF PERF
 09/22/1997 - 09/30/2000 FY99: \$1,642,754 Total: \$4,725,804
Prin. Invest.: N WAKIM
Tech. Officer: GSFC/L RANDOLPH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 235 BOWIE STATE UNIVERSITY 4946
 AN AGENT-BASED INFORMATION PROCESSING SYSTEM-OP AGREE-
 MENT WITH BOWIE S
 11/07/1997 - 12/14/1999 FY99: \$50,000 Total: \$100,000
Prin. Invest.: S SRIVASTAVA
Tech. Officer: GSFC/W TRUSZKOWSKI
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 246 BOWIE STATE UNIVERSITY 4947
 CITY LIGHTS DATA FOR THE MIDDLE EAST; DATA REGISTRATION AND
 ANALYSIS
 10/22/1997 - 07/31/1998 FY99: -\$1,343 Total: \$8,295
Prin. Invest.: W LAWRENCE
Tech. Officer: GSFC/M IMHOFF
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2942 CAPITOL COLLEGE 4948
 PRE-COLLEGE MINORITY ENGINEERING PROGRAM
 05/22/1995 - 05/31/1999 FY99: \$0 Total: \$230,906
Prin. Invest.: D DRESNER
Tech. Officer: GSFC/MENCHAN
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 7342 CAPITOL COLLEGE 4949
 TO RUN THE PRE-ENGINEERING PROGRAM
 04/27/1998 - 04/30/2000 FY99: \$53,900 Total: \$125,700
Prin. Invest.: J JARREL
Tech. Officer: GSFC/DMENCHAN
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 6249 CENTER FOR ENVIRON & ESTUARINE STUDIES U OF MD. 4950
 TIMES-SCALES OF LAND-USE CHANGE AND EXPORT OF N AN BASIN TO
 THE COASTAL ZONE
 08/19/1997 - 08/31/2000 FY99: \$118,000 Total: \$343,000
Prin. Invest.: P R FISHER
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6286 CENTER FOR ENVIRON & ESTUARINE STUDIES U OF MD. 4951
 REMOTE OBSERVATIONS AND MODELING OF PHYTOPLANKTON
 09/10/1997 - 08/31/2000 FY99: \$110,000 Total: \$431,351
Prin. Invest.: L HARDING
Tech. Officer: GSFC/J HARDING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6387 CENTER FOR ENVIRON & ESTUARINE STUDIES U OF MD. 4952
 MODELLING N2 AND CO2 FIXATION BY THE OCEANIC DIAZO TROPHIC CYA-
 NOBACTERIUMTRICHODESMIUM
 10/18/1997 - 09/30/2000 FY99: \$97,213 Total: \$189,797
Prin. Invest.: D G CAPONE
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7455 CENTER FOR ENVIRON & ESTUARINE STUDIES U OF MD. 4953
 INTEGRATING REMOTE AND IN SITU SENSING TO DETECT AND PREDICT
 CHANGE IN THE COASTAL ZONE
 07/28/1998 - 01/31/2000 FY99: \$0 Total: \$50,696
Prin. Invest.: T C MALONE
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7602 CENTER FOR ENVIRON & ESTUARINE STUDIES U OF MD. 4954
 REMOTE OBSERVATIONS IN THE CHOPTANK RIVER INDEX SITE: OCEAN
 COLOR, SALINITY, TEMPERATURE AND C
 07/21/1998 - 08/31/2001 FY99: \$46,000 Total: \$214,213
Prin. Invest.: L W HARDING
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 97131 CENTER FOR ENVIRON & ESTUARINE STUDIES U OF MD. 4955
 VALIDATION OF OCEAN COLOR
 09/12/1997 - 09/11/1999 FY99: \$85,700 Total: \$366,400
Prin. Invest.: D G CAPONE
Tech. Officer: GSFC/C MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NCC 5 69 CHARLES COUNTY COMMUNITY COLLEGE 4956
 LAB INVESTIGATIONS OF FORMATION PROPERTIES & METAMORPHISM OF
 PRE-SOLAR MATERIALS
 06/01/1994 - 05/31/1999 FY99: \$0 Total: \$90,693
Prin. Invest.: G KRAUSE
Tech. Officer: GSFC/J NUTH, GSFC/J ALLEN
CASE Category: 11 - ASTRONOMY

NCC 5 400 CHARLES COUNTY COMMUNITY COLLEGE 4957
 LABORATORY INVESTIGATION OF THE FORMATION, PROPERTIES AND
 METAMORPHISM OF PRE-SOLAR MATERIALS
 05/14/1999 - 05/31/2000 FY99: \$19,429 Total: \$19,429
Prin. Invest.: G KRAUSE
Tech. Officer: GSFC/J A NUTH
CASE Category: 12 - CHEMISTRY

NAG 8 1315 COPPIN STATE COLLEGE 4958
 JOVE RESEARCH STUDY
 01/28/1997 - 08/31/1998 FY99: \$0 Total: \$37,196
Prin. Invest.: M E OWENS
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 1 1811 JOHNS HOPKINS UNIVERSITY 4959
 NONDESTRUCTIVE DETERMINATION OF BOND STRENGTH
 02/26/1996 - 06/30/2000 FY99: \$37,500 Total: \$150,000
Prin. Invest.: R E GREEN, JR.
Tech. Officer: LARC/M J ROBERTS
CASE Category: 46 - MECHANICAL ENGR

NAG 1 2043 JOHNS HOPKINS UNIVERSITY 4960
 INFERRING ASPECTS OF TRANSPORT AND MIXING IN THE STRATOSP-
 HERE AND TROPOSPHERE FROM CHEMICAL TRACER
 04/01/1998 - 03/31/2001 FY99: \$58,000 Total: \$129,000
Prin. Invest.: D W WAUGH
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2194 **JOHNS HOPKINS UNIVERSITY** **4961**
 DYNAMICAL COUPLING OF THE TROPOSPHERE WITH THE POLAR STRATO-
 SPHERE
 05/14/1999 - 04/30/2002 FY99: \$38,718 Total: \$38,718
Prin. Invest.: D W WAUGH
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1815 **JOHNS HOPKINS UNIVERSITY** **4962**
 EXPERIMENTAL INVESTIGATION; POOL BOILING HEAT TRANSFER
 ENHANCEMENT IN THE PRESENCE OF ELECTRIC FIELD
 03/25/1996 - 03/24/2000 FY99: \$70,221 Total: \$233,940
Prin. Invest.: D HERMAN *Prin. Invest.:* NONE
Tech. Officer: GRC/H K NAHRA, GRC/B MOTIL
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1923 **JOHNS HOPKINS UNIVERSITY** **4963**
 MARANGONI EFFECT ON DROP DEFORM & BREAK UP IN A EXTENDED FLOW: THE
 ROLE OF SURFACTANT PHYSIC CHEMISTRY
 07/18/1996 - 07/17/2000 FY99: \$69,681 Total: \$244,679
Prin. Invest.: K J STEBE
Tech. Officer: GRC/B S SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 3 1924 **JOHNS HOPKINS UNIVERSITY** **4964**
 ACOUSTIC BUBBLE REMOVAL FROM BOILING SURFACES
 07/18/1996 - 07/17/2000 FY99: \$97,450 Total: \$280,068
Prin. Invest.: A PROSPERETTI, H N OGUZ, E H TRINH
Tech. Officer: GRC/B S SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1925 **JOHNS HOPKINS UNIVERSITY** **4965**
 PRODUCTION OF GAS BUBBLES IN REDUCED GRAVITY ENVIRONMENTS
 07/18/1996 - 07/17/1998 FY99: \$0 Total: \$119,998
Prin. Invest.: P OGUZ
Tech. Officer: GRC/H K NAHRA, GRC/B MOTIL
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1954 **JOHNS HOPKINS UNIVERSITY** **4966**
 SURFACTANT BASED CRITICAL PHENOMENA IN MICROGRAVITY
 08/19/1996 - 08/31/2000 FY99: \$61,000 Total: \$197,500
Prin. Invest.: M E PAULATIS
Tech. Officer: GRC/B SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 3 2118 **JOHNS HOPKINS UNIVERSITY** **4967**
 PRODUCTION AND REMOVAL OF GAS BUBBLES IN MICROGRAVITY
 02/26/1998 - 01/07/2002 FY99: \$80,000 Total: \$140,474
Prin. Invest.: H N OGUZ
Tech. Officer: GRC/H K NAHRA
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 1099 **JOHNS HOPKINS UNIVERSITY** **4968**
 DATA INTERFACES ISTP GROUND BASED DARN PROGRAM
 11/01/1988 - 11/30/1998 FY99: -\$3,577 Total: \$2,244,423
Prin. Invest.: R A GREENWALD
Tech. Officer: GSFC/S A CURTIS, GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 1617 **JOHNS HOPKINS UNIVERSITY** **4969**
 SEARCH FOR CLOSE COMPANIONS OF NEARBY STARS AND TO SIMULATE
 ST IMAGES IN THE LABORATORY
 05/24/1991 - 10/31/1999 FY99: \$0 Total: \$853,276
Prin. Invest.: H FORD
Tech. Officer: GSFC/J JELETIC
CASE Category: 11 - ASTRONOMY

NAG 5 2039 **JOHNS HOPKINS UNIVERSITY** **4970**
 RADIATIVE AND CONVECTIVE PROCESSES
 07/17/1992 - 05/31/1999 FY99: \$0 Total: \$838,174
Prin. Invest.: A ARKING
Tech. Officer: GSFC/K M LAU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2232 **JOHNS HOPKINS UNIVERSITY** **4971**
 RECEIVER DESIGN, PERFORMANCE ANALYSIS, AND EVALUATION FOR
 SPACE-BORNE LASER ALTIMETERS AND . . .
 04/08/1993 - 09/30/1999 FY99: \$30,000 Total: \$829,807
Prin. Invest.: M DAVIDSON, X SUN
Tech. Officer: GSFC/P MILLAR
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 2398 **JOHNS HOPKINS UNIVERSITY** **4972**
 VOYAGER OBSERVATIONS OF THE DIFFUSE FUV RADIATION FIELD
 10/22/1993 - 10/31/1998 FY99: \$0 Total: \$140,400
Prin. Invest.: J N MURTHY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2548 **JOHNS HOPKINS UNIVERSITY** **4973**
 THE MOST LUMINOUS OBJECT IN THE UNIVERSE: PROTOGA LAXY OR
 SHROUDED QUASAR
 03/03/1994 - 11/30/1997 FY99: \$0 Total: \$43,483
Prin. Invest.: T M HECKMAN
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2728 **JOHNS HOPKINS UNIVERSITY** **4974**
 STAR FORMING DWARF GALAXIES AND THE X-RAY BACK- GROUND
 09/21/1994 - 05/14/1999 FY99: \$0 Total: \$59,367
Prin. Invest.: R GRIFFITHS
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3187 **JOHNS HOPKINS UNIVERSITY** **4975**
 INVESTIGATING MAGNETOSPHERIC DYNAMICS WITH THE POLAR SAT-
 ELLITE UV AND VISIBLE IMAGERS
 03/26/1996 - 09/30/1998 FY99: -\$2,874 Total: \$997,126
Prin. Invest.: C MENG
Tech. Officer: GSFC/R A HOFFMAN
CASE Category: 13 - PHYSICS

NAG 5 3251 **JOHNS HOPKINS UNIVERSITY** **4976**
 HUBBLE: HOPKINS ULTRAVIOLET BACKGROUND EXPLORER
 06/03/1996 - 12/14/1998 FY99: \$0 Total: \$400,000
Prin. Invest.: D C HENRY
Tech. Officer: GSFC/M D DAVIS
CASE Category: 11 - ASTRONOMY

NAG 5 3255 **JOHNS HOPKINS UNIVERSITY** **4977**
 THE STRUCTURE OF ACTIVE GALACTIC NUCLEI
 06/06/1996 – 12/31/1999 FY99: \$81,000 Total: \$233,700
Prin. Invest.: G A KRISS
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3316 **JOHNS HOPKINS UNIVERSITY** **4978**
 JHU PARTICIPATION IN GO AND GTO PROGRAMS OF THE IN FRARED
 SPACE OBSERVATORY
 07/31/1996 – 08/14/1999 FY99: \$0 Total: \$93,400
Prin. Invest.: D A NEUFELD
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3419 **JOHNS HOPKINS UNIVERSITY** **4979**
 STATISTICAL CROSS-CORRELATION STUDY OF THE COSMIC X-RAY BACK-
 GROUND IN OPTICAL DEEP MULTICOLOR PHOTOM
 09/14/1996 – 03/14/1998 FY99: \$0 Total: \$12,500
Prin. Invest.: A SZALAY
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3448 **JOHNS HOPKINS UNIVERSITY** **4980**
 FAR ULTRAVIOLET SPECTROSCOPIC EXPLORER (FUSE) OUTR EACH INI-
 TIATIVE.
 10/04/1996 – 10/14/2000 FY99: \$50,000 Total: \$85,000
Prin. Invest.: D MOOS, D HOLMES
Tech. Officer: GSFC/D R MENGERS, GSFC/O FINGUEROA
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 3452 **JOHNS HOPKINS UNIVERSITY** **4981**
 TOWARD THE DEVELOPMENT OF GALLIUM NITRIDE PHOTOVOLTAIC
 DETECTORS
 10/15/1996 – 01/31/1998 FY99: -\$12,095 Total: \$12,905
Prin. Invest.: D K WICKENDAN, T J KISTENMACHER
Tech. Officer: GSFC/D B MOTT, GSFC/P K SHU
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 3485 **JOHNS HOPKINS UNIVERSITY** **4982**
 DIFFUSE IONIZED GAS IN GALACTIC ENVIRONMENTS
 10/31/1996 – 10/31/1999 FY99: \$105,300 Total: \$314,900
Prin. Invest.: K R SEMBACH
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3503 **JOHNS HOPKINS UNIVERSITY** **4983**
 THE EVOLUTION AND CLUSTERING OF GALAXIES AT $Z=1$ AND
 11/27/1996 – 11/30/1999 FY99: \$179,900 Total: \$394,711
Prin. Invest.: A S SZALAY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3504 **JOHNS HOPKINS UNIVERSITY** **4984**
 A ROBUST TEST OF THE UNIFIED MODEL FOR SEYFERT GALACTIC IMPLICA-
 TIONS FOR THE STARBURST PHENOMENON
 11/27/1996 – 11/30/1998 FY99: \$0 Total: \$169,586
Prin. Invest.: K A WEAVER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3542 **JOHNS HOPKINS UNIVERSITY** **4985**
 A MULTI-WAVELENGTH STUDY OF MOLECULES IN THE INTERSTELLAR
 MEDIUM
 11/27/1996 – 03/31/2000 FY99: \$0 Total: \$115,800
Prin. Invest.: D A NEUFELD
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3704 **JOHNS HOPKINS UNIVERSITY** **4986**
 PROBING LOW IONIZATION GAS IN STARS & AGNS: THE SILENT
 01/24/1997 – 01/31/2000 FY99: \$0 Total: \$36,441
Prin. Invest.: B R ESPEY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3869 **JOHNS HOPKINS UNIVERSITY** **4987**
 DATA SET PRESERVATION FOR MAGNETIC FIELD EXPERIMENT VIKING SAT-
 ELLITES
 01/29/1997 – 03/31/1999 FY99: -\$3,153 Total: \$28,233
Prin. Invest.: D B HOLLAND
Tech. Officer: GSFC/J WILLETT
CASE Category: 13 – PHYSICS

NAG 5 3879 **JOHNS HOPKINS UNIVERSITY** **4988**
 MULTI-POINT, MAGNETOSPHERIC RECONNAISSANCE IMAGING DYNAMICS,
 EVOLUTION, ORIGINS, AND STRUCTURE
 02/26/1997 – 02/29/2000 FY99: \$0 Total: \$92,314
Prin. Invest.: D G MITCHELL
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 – PHYSICS

NAG 5 3928 **JOHNS HOPKINS UNIVERSITY** **4989**
 CHEMICAL EVOLUTION OF THE MILKY WAY GALAXY
 02/25/1997 – 02/29/2000 FY99: \$0 Total: \$100,000
Prin. Invest.: R F WYSE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3929 **JOHNS HOPKINS UNIVERSITY** **4990**
 WHAT IS THE NATURE OF ACCRETION IN ACTIVE GALACTIC
 03/03/1997 – 02/28/1999 FY99: \$0 Total: \$60,000
Prin. Invest.: J H KROLIK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4010 **JOHNS HOPKINS UNIVERSITY** **4991**
 MODELING THE ENTRY OF SOLAR WIND PARTICLES INTO THE
 03/06/1997 – 04/30/2000 FY99: \$30,700 Total: \$120,600
Prin. Invest.: D WING
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 – PHYSICS

NAG 5 4168 **JOHNS HOPKINS UNIVERSITY** **4992**
 PLANETARY AERONOMY
 03/15/1997 – 02/28/2000 FY99: \$85,777 Total: \$256,177
Prin. Invest.: D F STROBEL
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4261 **JOHNS HOPKINS UNIVERSITY** **4993**
 WINDOWLESS FUV LAMPS
 04/14/1997 - 12/31/1999 FY99: \$46,000 Total: \$109,100
Prin. Invest.: D R MCCANDLISS
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4365 **JOHNS HOPKINS UNIVERSITY** **4994**
 CONTINUATION OF THE VOYAGER INTERSTELLAR MISSION:
 04/23/1997 - 03/31/2001 FY99: \$475,000 Total: \$1,425,000
Prin. Invest.: D M KRIMIGIS
Tech. Officer: GSFC/C P HOLMES
CASE Category: 13 - PHYSICS

NAG 5 4399 **JOHNS HOPKINS UNIVERSITY** **4995**
 TO STUDY THE SOLAR TERRESTRIAL RELATIONS OBSERVATO
 04/16/1997 - 04/14/1998 FY99: -\$1,980 Total: \$128,020
Prin. Invest.: D M RUST
Tech. Officer: GSFC/J DAVILA
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 4525 **JOHNS HOPKINS UNIVERSITY** **4996**
 PRESSURE PROFILES OF THE MAGNETOSPHERE AS REFLECTE OBSERVA-
 TIONS
 05/02/1997 - 09/30/1998 FY99: -\$16,247 Total: \$48,953
Prin. Invest.: D T NEWELL
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4548 **JOHNS HOPKINS UNIVERSITY** **4997**
 REFLECTRON TIME-OF-FLIGHT MASS SPECTROMETER INSTRU
 05/05/1997 - 10/31/1999 FY99: \$90,533 Total: \$311,700
Prin. Invest.: D W MCENTIRE
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4549 **JOHNS HOPKINS UNIVERSITY** **4998**
 ANALYSIS OF EMIC WAVE GENERATION AND PROPAGATION U
 05/06/1997 - 04/30/2000 FY99: \$70,000 Total: \$210,000
Prin. Invest.: D E ERLANDSON
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4582 **JOHNS HOPKINS UNIVERSITY** **4999**
 A LOW COST MERCURY ORBITER MISSION
 05/13/1997 - 03/31/1999 FY99: \$0 Total: \$94,000
Prin. Invest.: D H MAUK
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 4626 **JOHNS HOPKINS UNIVERSITY** **5000**
 UNMASKING OBSCURED SEYFERT 1 NUCLEI WITH RXTE
 05/21/1997 - 05/31/1999 FY99: \$0 Total: \$22,296
Prin. Invest.: K A WEAVER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4664 **JOHNS HOPKINS UNIVERSITY** **5001**
 ION CYCLOTRON WAVES: AN ISTP STUDY
 06/25/1997 - 05/31/2000 FY99: \$0 Total: \$101,931
Prin. Invest.: D J ANDERSON
Tech. Officer: GSFC/J G GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4672 **JOHNS HOPKINS UNIVERSITY** **5002**
 ISTP: MAGNETOSHEATH PROCESSES AND TRANSIENT EVENT
 06/09/1997 - 05/31/1999 FY99: \$0 Total: \$200,000
Prin. Invest.: D G SIBECK
Tech. Officer: GSFC/D EVANS
CASE Category: 13 - PHYSICS

NAG 5 4679 **JOHNS HOPKINS UNIVERSITY** **5003**
 CONCERNING THE SOLAR WIND INPUT INTO THE MAGNETOSP
 06/05/1997 - 05/31/2000 FY99: \$116,417 Total: \$163,500
Prin. Invest.: D G SIBECK
Tech. Officer: GSFC/D EVANS
CASE Category: 13 - PHYSICS

NAG 5 4736 **JOHNS HOPKINS UNIVERSITY** **5004**
 SCIENTIFIC AND TECHNICAL DEVELOPMENT OF THE NEXT G TELESCOPE
 06/11/1997 - 12/31/1999 FY99: \$190,000 Total: \$431,971
Prin. Invest.: R BURG
Tech. Officer: GSFC/E P SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 4780 **JOHNS HOPKINS UNIVERSITY** **5005**
 RADIATIVE AND PHOTOCHEMICAL MODELING DURING POLARI
 06/09/1997 - 12/31/1999 FY99: \$0 Total: \$344,958
Prin. Invest.: S A LLOYD
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4955 **JOHNS HOPKINS UNIVERSITY** **5006**
 AN OPTICAL INVESTIGATION OF THE GENESIS OF SOLAR A
 06/23/1997 - 05/31/2000 FY99: \$100,000 Total: \$758,000
Prin. Invest.: D M RUST
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 4969 **JOHNS HOPKINS UNIVERSITY** **5007**
 COORDINATED ISTP SATELLITE - GROUND STUDY OF MAGNE PROCESSES
 06/23/1997 - 06/14/2000 FY99: \$10,000 Total: \$158,300
Prin. Invest.: D OHTANI
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 5047 **JOHNS HOPKINS UNIVERSITY** **5008**
 WIND-WAVE-CURRENT COUPLED MODEL
 08/22/1995 - 09/30/1999 FY99: \$8,500 Total: \$330,989
Prin. Invest.: O PHILLIPS
Tech. Officer: GSFC/S R LONG, GSFC/N E HUANG
CASE Category: 33 - OCEANOGRAPHY

NAG 5 5082 **JOHNS HOPKINS UNIVERSITY** **5009**
 MEASUREMENTS OF TEMPERATURE FOR THE STUDIES OF DAYGLOW
 EMISSIONS
 06/14/1996 - 05/31/1999 FY99: \$0 Total: \$59,500
Prin. Invest.: J YEE
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5122 **JOHNS HOPKINS UNIVERSITY** **5010**
 ROCKET AND LABORATORY EXPERIMENTS IN ASTRONOMY
 02/21/1997 - 02/28/2000 FY99: \$492,000 Total: \$1,560,000
Prin. Invest.: P D FELDMAN
Tech. Officer: GSFC/B J FLOWERS
CASE Category: 13 - PHYSICS

NAG 5 5138 **JOHNS HOPKINS UNIVERSITY** **5011**
 ALTIMETER SEA-STATE BIAS MODEL STUDY FUNDING FOR THE FIRST
 YEAR OF THE GRANT
 04/10/1997 - 05/31/2000 FY99: \$133,000 Total: \$254,588
Prin. Invest.: D R THOMPSON
Tech. Officer: GSFC/D C VANDEMARK, GSFC/E J WALSH
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 5150 **JOHNS HOPKINS UNIVERSITY** **5012**
 SUPPORT FOR SCOR WORKING GROUP ON THE COUPLING OF WINDS,
 WAVES, AND CURRENTS IN COASTAL MODELS
 09/21/1997 - 12/31/1998 FY99: \$0 Total: \$60,000
Prin. Invest.: J FIELD
Tech. Officer: GSFC/S R LONG, GSFC/S R HUANG
CASE Category: 33 - OCEANOGRAPHY

NAG 5 5193 **JOHNS HOPKINS UNIVERSITY** **5013**
 CONFERENCE IN ENVIRONMENTAL FLUID MECHANICS CONFERENCE IN
 ENVIRONMENTAL FLUID MECHANICS
 04/20/1998 - 05/31/1998 FY99: \$0 Total: \$6,600
Prin. Invest.: H SALMUN, O M PHILLIPS
Tech. Officer: GSFC/S R LONG, GSFC/N E HUANG
CASE Category: 33 - OCEANOGRAPHY

NAG 5 5198 **JOHNS HOPKINS UNIVERSITY** **5014**
 DENSITY TEMPERATURE & MEASUREMENTS FOR ICON ROCKET EXPERI-
 MENT
 05/21/1998 - 04/11/2001 FY99: \$22,420 Total: \$41,805
Prin. Invest.: J H YEE
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6000 **JOHNS HOPKINS UNIVERSITY** **5015**
 GLOBAL ATOMIC OXYGEN DISTRIBUTION IN THE MESOSPHERE RE
 (80-105KM)
 08/26/1997 - 07/31/1999 FY99: \$0 Total: \$72,700
Prin. Invest.: D YEE
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6014 **JOHNS HOPKINS UNIVERSITY** **5016**
 A COMPACT PARTICLE DETECTOR
 09/15/1997 - 06/30/1999 FY99: \$0 Total: \$114,100
Prin. Invest.: D L MCNUTT
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6050 **JOHNS HOPKINS UNIVERSITY** **5017**
 LOW LATITUDE CURRENT SYSTEMS DETERMINED FROM SATEL OBSERVA-
 TIONS
 07/28/1997 - 09/30/1999 FY99: \$41,867 Total: \$123,800
Prin. Invest.: B J ANDERSON
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6113 **JOHNS HOPKINS UNIVERSITY** **5018**
 PROJECT ULYSSES HI-SCALE DATA ANALYSIS PHASE ACTIV
 07/28/1997 - 12/31/1999 FY99: \$410,000 Total: \$812,000
Prin. Invest.: M TOSSMAN
Tech. Officer: GSFC/J WILLETT
CASE Category: 13 - PHYSICS

NAG 5 6178 **JOHNS HOPKINS UNIVERSITY** **5019**
 CRITICAL COMPARISON OF SUBSTORM TRIGGER MODELS AGA HE NEAR-
 EARTH TAIL
 07/28/1997 - 05/14/2001 FY99: \$81,353 Total: \$179,499
Prin. Invest.: D OHTANI
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6182 **JOHNS HOPKINS UNIVERSITY** **5020**
 MAGNETIC FIELD-ALIGNED ELECTRODYNAMICS OF THE MIDD
 07/30/1997 - 12/31/1999 FY99: \$26,667 Total: \$80,000
Prin. Invest.: D H MAUK
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6400 **JOHNS HOPKINS UNIVERSITY** **5021**
 SPACE OBSERVATIONS OF STARBURST GALAXIES (LTSA)
 10/10/1997 - 09/30/1999 FY99: \$129,200 Total: \$254,200
Prin. Invest.: T HECKMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6438 **JOHNS HOPKINS UNIVERSITY** **5022**
 ANALYSIS OF ENERGETIC NEUTRAL ATOM IMAGES FROM THE SWEDISH
 MICROSATELLITE ASTRID-1
 10/31/1997 - 08/31/1999 FY99: \$0 Total: \$55,200
Prin. Invest.: E ROELOF
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6468 **JOHNS HOPKINS UNIVERSITY** **5023**
 MINIATURIZED MODULAR IMAGING SYSTEM
 10/24/1997 - 10/14/1999 FY99: \$67,375 Total: \$227,900
Prin. Invest.: D GOLD
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6513 **JOHNS HOPKINS UNIVERSITY** **5024**
 GLOBAL HELIOSPHERIC STRUCTURE AND DYNAMICS
 10/27/1997 - 09/30/1998 FY99: -\$933 Total: \$24,067
Prin. Invest.: D MCNUTT, JR.
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6568 **JOHNS HOPKINS UNIVERSITY** **5025**
 THE MAGNETOTAIL CROSS-TAIL CURRENT SHEET: ITS STAT ILITY AND ITS
 ROLE IN BURSTY-BULK FLOWS AND SUBST
 11/12/1997 - 09/30/1999 FY99: \$0 Total: \$69,300
Prin. Invest.: D G MITCHELL
Tech. Officer: GSFC/J BOHLIN
CASE Category: 11 - ASTRONOMY

NAG 5 6732 **JOHNS HOPKINS UNIVERSITY** **5026**
 MAGNETIC CATAclysmic VARIABLES
 12/16/1997 - 12/31/1999 FY99: \$0 Total: \$45,000
Prin. Invest.: W BLAIR
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 6764 **JOHNS HOPKINS UNIVERSITY** **5027**
 MONITORING OF NGC 4151
 12/30/1997 - 12/31/1999 FY99: \$0 Total: \$45,000
Prin. Invest.: G KRISS
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 6898 **JOHNS HOPKINS UNIVERSITY** **5028**
 MONITORING REPROCESSED FLUX IN MCG-5-23-16 WITH ASCA AND XTE
 06/01/1997 - 05/31/1998 FY99: \$0 Total: \$16,748
Prin. Invest.: K WEAVER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6917 **JOHNS HOPKINS UNIVERSITY** **5029**
 PRESIDENTIAL EARLY CAREER AWARD GRANT PROPOSAL
 03/11/1998 - 08/14/1999 FY99: \$0 Total: \$100,000
Prin. Invest.: K A WEAVER
Tech. Officer: GSFC/L KALUZIENSKI
CASE Category: 11 - ASTRONOMY

NAG 5 7010 **JOHNS HOPKINS UNIVERSITY** **5030**
 MEASURING THE AMOUNT OF COMPTON REFLECTION IN MCG-2-58-22XTE PROPOSAL AO2
 02/17/1998 - 08/14/1999 FY99: \$0 Total: \$11,668
Prin. Invest.: K A WEAVER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7080 **JOHNS HOPKINS UNIVERSITY** **5031**
 PYROTECHNIC ROCK CHIPPER
 03/10/1998 - 07/31/2000 FY99: \$118,303 Total: \$165,974
Prin. Invest.: A F CHENG
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 7186 **JOHNS HOPKINS UNIVERSITY** **5032**
 INFRARED INVESTIGATION OF COMETARY VOLATILES
 03/25/1998 - 02/28/2001 FY99: \$68,000 Total: \$136,000
Prin. Invest.: H WEAVER
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 7189 **JOHNS HOPKINS UNIVERSITY** **5033**
 DMSP SSJ4 DATA RESTORATION, CLASSIFICATION, AND ON-LINE DATA ACCESS
 04/09/1998 - 03/31/2000 FY99: \$28,410 Total: \$57,910
Prin. Invest.: S WING
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 7227 **JOHNS HOPKINS UNIVERSITY** **5034**
 TOMS VALIDATION AND UTLS PHOTOCHEMISTRY USING ER-2 AND GROUND BASED DATASETS
 04/14/1998 - 04/14/2000 FY99: \$69,151 Total: \$109,151
Prin. Invest.: S A LLOYD
Tech. Officer: GSFC/E HILSEN RATH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7235 **JOHNS HOPKINS UNIVERSITY** **5035**
 A SEARCH FOR TOROIDAL MAGNETIC FIELDS IN THE SOLAR PHOTOSPHERE
 04/08/1998 - 09/30/1999 FY99: \$0 Total: \$52,851
Prin. Invest.: D M RUST
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7314 **JOHNS HOPKINS UNIVERSITY** **5036**
 PLASMA PRESSURE IN THE TOPSIDE IONOSPHERE
 04/22/1998 - 03/31/1999 FY99: \$13,750 Total: \$33,000
Prin. Invest.: P T NEWELL
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7361 **JOHNS HOPKINS UNIVERSITY** **5037**
 MIDDLEWORLD TRANSPORT WITHIN THREE-DIMENSIONAL MODELS: CHARACTERIZATION AND SENSITIVITIES TO MODEL
 05/06/1998 - 09/30/1999 FY99: \$40,000 Total: \$88,961
Prin. Invest.: D W WAUGH
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7552 **JOHNS HOPKINS UNIVERSITY** **5038**
 TROPOSPHERIC AND STRATOSPHERIC COMPOSITION RETRIEVALS USING THE STELLAR OCCULTATION TECHNIQUE
 06/22/1998 - 01/31/2000 FY99: \$208,694 Total: \$482,813
Prin. Invest.: J YEE
Tech. Officer: GSFC/J A KAYE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 7621 **JOHNS HOPKINS UNIVERSITY** **5039**
 AN INVESTIGATION OF RADIATIVE DYNAMICAL COUPLING IN THE JOVIAN ATMOSPHERE
 07/30/1998 - 07/14/1999 FY99: \$0 Total: \$105,000
Prin. Invest.: D F APPLEBY
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7633 **JOHNS HOPKINS UNIVERSITY** **5040**
 WORKSHOP TO DEVELOP SCIENCE PLAN FOR INTERNATIONAL PROGRAM ON ECOLOGY AND OCEANOGRAPHY
 08/21/1998 - 06/30/1999 FY99: \$0 Total: \$15,000
Prin. Invest.: E GROSS
Tech. Officer: HQ/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7697 **JOHNS HOPKINS UNIVERSITY** **5041**
 PROPOSAL TITLED "A PROPOSAL TO INVESTIGATE OUTSTANDING PROBLEMS IN ASTRONOMY BY THE INSTRUMENT DEFINITION"
 09/17/1998 - 11/30/1999 FY99: \$1,892,427 Total: \$2,591,831
Prin. Invest.: H FORD
Tech. Officer: GSFC/J JELETIC
CASE Category: 11 - ASTRONOMY

NAG 5 7720 **JOHNS HOPKINS UNIVERSITY** **5042**
 TWO WIDE-ANGLE IMAGING NEUTRAL-ATOM SPECTROMETERS (TWINS)
 11/10/1998 - 11/14/1999 FY99: \$37,000 Total: \$37,000
Prin. Invest.: E C ROELOF
Tech. Officer: GSFC/D MENGERS
CASE Category: 99 - MULTI-INTERDISCIPLINARY, OTHER

NAG 5 7724 **JOHNS HOPKINS UNIVERSITY** **5043**
 QUANTITATIVE MAGNETOSPHERIC DYNAMICS FROM POLAR UV AND VIS-
 IBLE IMAGERS
 09/24/1998 – 09/30/2000 FY99: \$260,000 Total: \$520,000
Prin. Invest.: C I MENG, NONE
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 7769 **JOHNS HOPKINS UNIVERSITY** **5044**
 GRAVITY WAVES IN JUPITER'S UPPER ATMOSPHERE
 01/15/1999 – 01/14/2000 FY99: \$60,000 Total: \$60,000
Prin. Invest.: D STROBEL
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 – ASTRONOMY

NAG 5 7773 **JOHNS HOPKINS UNIVERSITY** **5045**
 TOWARD THE DEVELOPMENT OF GROUP III NITRIDE PHOTODETECTORS
 AND IMAGING ARRAYS
 11/13/1998 – 10/31/1999 FY99: \$24,605 Total: \$24,605
Prin. Invest.: D WICKENDEN
Tech. Officer: GSFC/B MOTT
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 7797 **JOHNS HOPKINS UNIVERSITY** **5046**
 TURBULENCE IN MAGNETOTAIL PLASMA SHEET
 12/15/1998 – 09/30/2000 FY99: \$178,183 Total: \$178,183
Prin. Invest.: D Y LUI
Tech. Officer: GSFC/D EVANS
CASE Category: 11 – ASTRONOMY

NAG 5 7863 **JOHNS HOPKINS UNIVERSITY** **5047**
 SATELLITE BOMBARDMENT MODEL WITH DATA CONSTRAINTS
 01/11/1999 – 12/31/1999 FY99: \$85,639 Total: \$85,639
Prin. Invest.: C P PARANICAS
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 – ASTRONOMY

NAG 5 7920 **JOHNS HOPKINS UNIVERSITY** **5048**
 ISTP: SOLAR WIND, FORESHOCK, AND MAGNETOSHEATH PROCESSES
 12/15/1998 – 11/30/1999 FY99: \$100,000 Total: \$100,000
Prin. Invest.: D G SIBECK
Tech. Officer: GSFC/D EVANS
CASE Category: 11 – ASTRONOMY

NAG 5 7921 **JOHNS HOPKINS UNIVERSITY** **5049**
 SOLAR FILAMENTS AT 1 AU
 12/10/1998 – 12/31/1999 FY99: \$89,628 Total: \$89,628
Prin. Invest.: D M RUST
Tech. Officer: GSFC/D C LING
CASE Category: 11 – ASTRONOMY

NAG 5 7934 **JOHNS HOPKINS UNIVERSITY** **5050**
 UNRAVELING THE EVOLUTION OF GALAXIES (LTSA 98)
 12/14/1998 – 03/31/1999 FY99: \$0 Total: \$0
Prin. Invest.: A CONNOLLY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7999 **JOHNS HOPKINS UNIVERSITY** **5051**
 DISCOVERY MISSION SELECTION – ALADDIN AO98-OSS-04ALADDIN FEASIBILITY STUDY
 01/05/1999 – 06/30/1999 FY99: \$340,000 Total: \$340,000
Prin. Invest.: J T MUELLER
Tech. Officer: GSFC/M NOLAN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 8001 **JOHNS HOPKINS UNIVERSITY** **5052**
 DISCOVERY MISSION SELECTION – MESSENGER AO98-OSS-0 4FEASIBILITY STUDY
 01/05/1999 – 06/30/1999 FY99: \$370,000 Total: \$370,000
Prin. Invest.: M R PETERSON
Tech. Officer: GSFC/M NOLAN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 8007 **JOHNS HOPKINS UNIVERSITY** **5053**
 OPTIMIZED ANALYSIS OF RADAR ICE SOUNDER DATA
 01/06/1999 – 01/14/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: B L GOTWOLS
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 8019 **JOHNS HOPKINS UNIVERSITY** **5054**
 CORONAL MASS EJECTION EVENTS: COMPARATIVE GEOEFFECTIVENESS
 FROM SOLAR MINIMUM THROUGH SOLAR MAXIMUM
 01/06/1999 – 12/31/1999 FY99: \$78,918 Total: \$78,918
Prin. Invest.: N J FOX
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 – PHYSICS

NAG 5 8030 **JOHNS HOPKINS UNIVERSITY** **5055**
 INTEGRATING INTERBALL INTO THE ISTP
 01/13/1999 – 01/14/2000 FY99: \$60,200 Total: \$60,200
Prin. Invest.: D G SIBECK
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 – PHYSICS

NAG 5 8036 **JOHNS HOPKINS UNIVERSITY** **5056**
 AURORAL GLOBAL AND MULTI-SCALE INVESTIGATIONS USING POLAR
 IMAGES
 01/11/1999 – 01/14/2000 FY99: \$51,000 Total: \$51,000
Prin. Invest.: P T NEWELL
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 – PHYSICS

NAG 5 8037 **JOHNS HOPKINS UNIVERSITY** **5057**
 HIGH-LATITUDE ELECTRIC FIELD MODELS REFERENCED TO IMF ORIENTATION AND AURORAL CONFIGURATION
 01/11/1999 – 01/14/2000 FY99: \$59,992 Total: \$59,992
Prin. Invest.: R A GREENWALD
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 – PHYSICS

NAG 5 8061 **JOHNS HOPKINS UNIVERSITY** **5058**
 GPS-BASED FALLING SPHERE DEVELOPMENT
 01/12/1999 – 01/14/2000 FY99: \$83,461 Total: \$83,461
Prin. Invest.: F MORGAN
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 – PHYSICS

NAG 5 8062 **JOHNS HOPKINS UNIVERSITY** **5059**
ANALYSIS OF 3-D IMAGERY OF POLAR MESOSPHERIC CLOUD S
OBSERVED FROM MSX
01/12/1999 - 01/14/2000 FY99: \$96,000 Total: \$96,000
Prin. Invest.: D MORRISON
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 8122 **JOHNS HOPKINS UNIVERSITY** **5060**
ANALYSIS OF OPTICAL OBSERVATIONS OF TOPSIDE MOLECULAR IONS IN
THE POLAR REGIONS
02/03/1999 - 12/31/1999 FY99: \$93,000 Total: \$93,000
Prin. Invest.: G J ROMICK
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 8149 **JOHNS HOPKINS UNIVERSITY** **5061**
DEV. OF MISSION INDEPENDENCE DATA FORMAT FOR PARTICLE FIELD
MEASUREMENT WITH APPLICATION TO AMPTE/C
02/05/1999 - 12/31/1999 FY99: \$119,489 Total: \$119,489
Prin. Invest.: S R NYLUND
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 8171 **JOHNS HOPKINS UNIVERSITY** **5062**
SPATIAL VARIATIONS IN ROCK SPECTRAL PROPERTIES AT THE SAGAN
MEMORIAL STATION
02/22/1999 - 02/28/2000 FY99: \$36,000 Total: \$36,000
Prin. Invest.: S L MURCHIE
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8191 **JOHNS HOPKINS UNIVERSITY** **5063**
ENERGETIC ION INTERACTIONS WITH THE GALILEAN SATELLITES
04/21/1999 - 03/31/2000 FY99: \$15,461 Total: \$15,461
Prin. Invest.: D MAUK
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8279 **JOHNS HOPKINS UNIVERSITY** **5064**
RECONCILING STARBURSTS AND NORMAL STAR FORMATION (ADP98)
02/25/1999 - 05/14/2000 FY99: \$48,051 Total: \$48,051
Prin. Invest.: G R MEURER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8331 **JOHNS HOPKINS UNIVERSITY** **5065**
FLARE GENESIS EXPERIMENT
05/05/1999 - 05/31/2000 FY99: \$277,436 Total: \$277,436
Prin. Invest.: D M RUST
Tech. Officer: GSFC/WWAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 8334 **JOHNS HOPKINS UNIVERSITY** **5066**
STRUCTURAL AND CHEMICAL ALTERATIONS OF OUTER SYSTEM ICES
DUE TO RADIOLYSIS AND PHOTOLYSIS
02/24/1999 - 02/29/2000 FY99: \$6,617 Total: \$6,617
Prin. Invest.: D L DOMINQUE
Tech. Officer: GSFC/BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8347 **JOHNS HOPKINS UNIVERSITY** **5067**
OPTIMAL COADDITION OF DITHERED IMAGES USING THE KA RHUNEN-
LOEVE TRANSFORM
02/25/1999 - 02/29/2000 FY99: \$86,400 Total: \$86,400
Prin. Invest.: A S SZALAY
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 8361 **JOHNS HOPKINS UNIVERSITY** **5068**
ISTP MISSION DATA INTERFACES FOR DARN
03/12/1999 - 03/14/2000 FY99: \$200,000 Total: \$200,000
Prin. Invest.: R GREEWALD
Tech. Officer: GSFC/S CURTIS
CASE Category: 11 - ASTRONOMY

NAG 5 8395 **JOHNS HOPKINS UNIVERSITY** **5069**
TO PREPARE A PHASE A CONCEPT STUDY FOR THE AURORAL MULTI-
SCALE MIXED (AMM). AMM WAS SELECTED FOR A
03/09/1999 - 10/31/1999 FY99: \$350,000 Total: \$350,000
Prin. Invest.: B MAUK
Tech. Officer: GSFC/D MARGOLIES
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8403 **JOHNS HOPKINS UNIVERSITY** **5070**
ADAPTIVE INSTRUMENT MODULE (AIM) AD-17379
03/26/1999 - 09/14/1999 FY99: \$65,000 Total: \$65,000
Prin. Invest.: R CONDE
Tech. Officer: GSFC/P LUERS
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 8516 **JOHNS HOPKINS UNIVERSITY** **5071**
MINIATURIZED ENERGETIC PARTICLE DETECTOR DEVELOPMENT
06/14/1999 - 05/31/2000 FY99: \$148,449 Total: \$148,449
Prin. Invest.: R L MCNUTT
Tech. Officer: GSFC/B BETTS
CASE Category: 11 - ASTRONOMY

NAG 5 8548 **JOHNS HOPKINS UNIVERSITY** **5072**
IMPLEMENTATION OF ALGORITHMS FOR HIGH SPEED AUTONOMOUS CCD
DATA REDUCTION
05/18/1999 - 05/14/2000 FY99: \$21,250 Total: \$21,250
Prin. Invest.: G MURPHY
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 5 8572 **JOHNS HOPKINS UNIVERSITY** **5073**
CLOUD & WATER VAPOR EFFECTS ON CLIMATE SENSITIVITY
06/02/1999 - 05/31/2000 FY99: \$140,000 Total: \$140,000
Prin. Invest.: A ARKING
Tech. Officer: GSFC/W LAU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8590 **JOHNS HOPKINS UNIVERSITY** **5074**
STANDARDIZED SKY PARTITIONING FOR THE NEXT GENERATION
ASTRONOMY AND SPACE ARCHIVES
06/03/1999 - 05/31/2000 FY99: \$94,164 Total: \$94,164
Prin. Invest.: A SZALAY
Tech. Officer: GSFC/J H BREDEKAMP
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8655 **JOHNS HOPKINS UNIVERSITY** **5075**
 "CROSSLINK TRANSCIEVER DEVELOPMENT IN SUPPORT OF THE NASA/
 DOD UNIVERSITY NANO-SATELLITE PROGRAM."
 08/19/1999 - 12/31/2000 FY99: \$70,000 Total: \$70,000
Prin. Invest.: P A STADTER
Tech. Officer: GSFC/J BRISTOW
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 8665 **JOHNS HOPKINS UNIVERSITY** **5076**
 CROSSLINK NAVIGATION AND COMMUNICATION SYSTEM FOR MULTIPLE
 DISTRIBUTED SPACECRAFT.
 08/17/1999 - 08/31/2000 FY99: \$245,611 Total: \$245,611
Prin. Invest.: P A STADTER
Tech. Officer: GSFC/G H MUCKLOW
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 8687 **JOHNS HOPKINS UNIVERSITY** **5077**
 ADVANCED TECHNIQUES FOR ENERGETIC ION AND NEUTRAL ATOM TOF/
 IMAGING SENSORS
 07/20/1999 - 07/31/2000 FY99: \$89,783 Total: \$89,783
Prin. Invest.: D G MITCHELL
Tech. Officer: GSFC/G H MUCKLOW
CASE Category: 11 - ASTRONOMY

NAG 5 8688 **JOHNS HOPKINS UNIVERSITY** **5078**
 DATA COMPRESSION FOR TIME SERIES AND SPECTRAL DATA
 07/20/1999 - 07/31/2000 FY99: \$102,029 Total: \$102,029
Prin. Invest.: S HAWKINS, 111
Tech. Officer: GSFC/G H MUCKLOW
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 8741 **JOHNS HOPKINS UNIVERSITY** **5079**
 ADVANCED AUTOMATION CONCEPTS IN SPACEFLIGHT DYNAMICS & SPACE
 NAVIGATION.
 08/17/1999 - 08/31/2000 FY99: \$147,275 Total: \$147,275
Prin. Invest.: J BRISTOW
Tech. Officer: GSFC/J BRISTOW
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 8841 **JOHNS HOPKINS UNIVERSITY** **5080**
 ULTRA-BROAD BANDWIDTH ELECTRO-OPTIC MODULATOR WITH CAS-
 CADED BRAGG GRATINGS.
 09/22/1999 - 09/30/2000 FY99: \$19,563 Total: \$19,563
Prin. Invest.: D B KHURGIN
Tech. Officer: GSFC/H C SHAW
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 8852 **JOHNS HOPKINS UNIVERSITY** **5081**
 ADAPTIVE INSTRUMENT MODULE (AIM) GRANT NAG5-8403 BEGIN:9/1/99 -
 END: 8/30/00
 09/30/1999 - 09/30/2000 FY99: \$65,000 Total: \$65,000
Prin. Invest.: R CONDE
Tech. Officer: GSFC/P J LUERS
CASE Category: 45 - ELECTRICAL ENGR

NAG 8 1133 **JOHNS HOPKINS UNIVERSITY** **5082**
 INTERDISCIPLINARY SCIENTIST FOR THE ADVANCED X-RAY ASTRO-
 PHYSIC FACILITY
 01/11/1995 - 01/10/2000 FY99: \$0 Total: \$362,000
Prin. Invest.: R GIACCONI, R BURG, NONE
Tech. Officer: MSFC/M E ROSENTHAL
CASE Category: 11 - ASTRONOMY

NAG 8 1257 **JOHNS HOPKINS UNIVERSITY** **5083**
 RESEARCH "MEASUREMENT OF LIQUID-TO-SOLID NUCLEATION RATES IN
 UNDERCOOLED METALLIC MELTS
 04/18/1996 - 04/17/2000 FY99: \$65,000 Total: \$232,917
Prin. Invest.: J L KATZ
Tech. Officer: MSFC/P DOWNEY, MSFC/D WOODARD
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1377 **JOHNS HOPKINS UNIVERSITY** **5084**
 R/S "NOVEL MICROGRAVITY OPTICAL TECHNIQUE FOR MOLECULARLY
 ENGINEERING ELECTROPHORETIC MEDIA.
 07/23/1997 - 11/30/2000 FY99: \$123,000 Total: \$328,000
Prin. Invest.: D WIRTZ
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1527 **JOHNS HOPKINS UNIVERSITY** **5085**
 AXAF INTERDISCIPLINARY SCIENTIST
 03/30/1998 - 02/28/1999 FY99: \$0 Total: \$152,000
Prin. Invest.: R GIACCONI, C NORMAN
Tech. Officer: MSFC/M E ROSENTHAL
CASE Category: 11 - ASTRONOMY

NAG 9 1146 **JOHNS HOPKINS UNIVERSITY** **5086**
 CALCIUM KINETICS DURING SPACE FLIGHT
 09/14/1999 - 09/30/2003 FY99: \$33,600 Total: \$33,600
Prin. Invest.: K O O'BRIEN
Tech. Officer: SSC/S M SMITH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 2583 **JOHNS HOPKINS UNIVERSITY** **5087**
 NAGW-2583/JOHN HOPKINS UNIV/MODELING PERPENDICULAR CURRENT
 SHEETS IN THE EARTH'S MAGNETOTAIL
 08/12/1991 - 09/30/1998 FY99: \$0 Total: \$358,784
Prin. Invest.: D G MITCHELL
Tech. Officer: HQ/M M MELLOTT, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 2866 **JOHNS HOPKINS UNIVERSITY** **5088**
 INTEGRATED DUAL IMAGING DETECTOR
 02/10/1992 - 09/30/1997 FY99: -\$6,636 Total: \$609,464
Prin. Invest.: D M RUST
Tech. Officer: HQ/J K ALEXANDER, HQ/D A HOLLAND
CASE Category: 11 - ASTRONOMY

NAGW 3387 **JOHNS HOPKINS UNIVERSITY** **5089**
 SPACEBORNE GEOPHYSICAL SAMPLING DEVICE
 02/25/1993 - 09/30/1997 FY99: -\$36,170 Total: \$413,830
Prin. Invest.: A F CHENG
Tech. Officer: HQ/H C BRINTON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3449 **JOHNS HOPKINS UNIVERSITY** **5090**
 CROSS FIELD CURRENT DISRUPTION MECHANISM FOR SUBSTORM INITIATION
 03/19/1993 - 09/30/1997 FY99: \$0 Total: \$251,300
Prin. Invest.: A Y LUI
Tech. Officer: HQ/E C WHIPPLE, HQ/G L WITHBROE
CASE Category: 13 - PHYSICS

NAGW 3861 **JOHNS HOPKINS UNIVERSITY** **5091**
 JOHNS HOPKINS UNIV; STATISTICAL ANALYSIS OF TRIGONOMETRIC PARALLAXES
 01/31/1994 - 12/31/1998 FY99: \$0 Total: \$159,300
Prin. Invest.: S CASERTANO
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 4055 **JOHNS HOPKINS UNIVERSITY** **5092**
 CORRELATIVE STUDIES OF IONOSPHERIC ELECTRON TEMPERATURES AT HIGH LATITUDES
 06/17/1994 - 04/30/1998 FY99: -\$3,828 Total: \$206,072
Prin. Invest.: R E ERLANDSON
Tech. Officer: HQ/M MELLOTT
CASE Category: 13 - PHYSICS

NAGW 4133 **JOHNS HOPKINS UNIVERSITY** **5093**
 DISTRIBUTION AND EVOLUTION OF EMIC WAVES IN THE EARTH'S MAGNETOSPHERE
 09/13/1994 - 05/31/1998 FY99: \$0 Total: \$170,700
Prin. Invest.: B J ANDERSON
Tech. Officer: HQ/E C WHIPPLE, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4424 **JOHNS HOPKINS UNIVERSITY** **5094**
 PRESSURE PROFILES OF THE MAGNETOSPHERE AS REFLECTED IN IONOSPHERIC OBSERVATIONS
 04/21/1995 - 03/31/1998 FY99: -\$2,921 Total: \$121,279
Prin. Invest.: P T NEWELL
Tech. Officer: HQ/M M MELLOTT, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4547 **JOHNS HOPKINS UNIVERSITY** **5095**
 A COMPACT PARTICLE DETECTOR
 06/27/1995 - 09/30/1997 FY99: \$0 Total: \$217,200
Prin. Invest.: R MCNUTT, JR.
Tech. Officer: HQ/TKOSTIUK
CASE Category: 13 - PHYSICS

NAGW 4603 **JOHNS HOPKINS UNIVERSITY** **5096**
 GLOBAL HELIOSPHERIC STRUCTURE AND DYNAMICS
 07/12/1995 - 02/28/1998 FY99: \$0 Total: \$50,000
Prin. Invest.: R L MCNUTT
Tech. Officer: HQ/W V JONES, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4660 **JOHNS HOPKINS UNIVERSITY** **5097**
 COUPLING BETWEEN THE SUN AND TERRESTRIAL THERMOSPHERIC NEUTRAL WINDS
 07/28/1995 - 12/31/1997 FY99: \$0 Total: \$69,000
Prin. Invest.: L GOEMBEL
Tech. Officer: HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4716 **JOHNS HOPKINS UNIVERSITY** **5098**
 OCCULTATION STAR CATALOG IMPROVEMENT USING HIPPARCOS DATA
 09/07/1995 - 12/31/1998 FY99: -\$35 Total: \$34,100
Prin. Invest.: D W DUNHAM
Tech. Officer: HQ/R A STACHNIK
CASE Category: 11 - ASTRONOMY

NAGW 4729 **JOHNS HOPKINS UNIVERSITY** **5099**
 ANALYSIS OF ENERGETIC NEUTRAL ATOM IMAGES FOR THE SWEDISH MICROSATELLITE ASTRID-1
 09/12/1995 - 08/31/1998 FY99: \$0 Total: \$102,700
Prin. Invest.: F C ROELOF
Tech. Officer: HQ/R A HOFFMAN, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4979 **JOHNS HOPKINS UNIVERSITY** **5100**
 AN INVESTIGATION OF RADIATIVE-DYNAMICAL COUPLING IN THE JOVIAN ATMOSPHERE
 03/01/1996 - 07/15/1998 FY99: \$0 Total: \$93,000
Prin. Invest.: J F APPLEBY
Tech. Officer: HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 5093 **JOHNS HOPKINS UNIVERSITY** **5101**
 REFLECTION TIME OF FLIGHT MASS SPECTROMETER INSTRUMENTATION
 06/28/1996 - 09/30/1997 FY99: \$0 Total: \$154,000
Prin. Invest.: R W MCENTIRE
Tech. Officer: HQ/T KOSTIUK, HQ/H C BRINTON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 5105 **JOHNS HOPKINS UNIVERSITY** **5102**
 MINIATURIZED MODULAR IMAGING SYSTEM
 06/10/1996 - 12/31/1998 FY99: \$0 Total: \$109,800
Prin. Invest.: R E GOLD
Tech. Officer: HQ/T KOSTIUK, HQ/H C BRINTON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 3 99146 **JOHNS HOPKINS UNIVERSITY** **5103**
 THERMAL MANAGEMENT OF ROCKET BASED COMBINED CYCLE ENGINES
 04/01/1999 - 10/01/1999 FY99: \$62,055 Total: \$62,055
Prin. Invest.: D VAN WIE
Tech. Officer: GRC/C J TREFNY
CASE Category: 41 - AERONAUTICAL ENGR

NAS 5 27000 **JOHNS HOPKINS UNIVERSITY** **5104**
 DEVELOPMENT PHASE OF THE HOPKINS ULTRAVIOLET TELESCOPE
 09/21/1981 - 09/30/1998 FY99: \$0 Total: \$34,089,575
Prin. Invest.: A F DAVIDSEN
Tech. Officer: MSFC/J H OWENS
CASE Category: 11 - ASTRONOMY

NAS 5 30403 **JOHNS HOPKINS UNIVERSITY** **5105**
 SPACE TELESCOPE IMAGING SPECTROGRAPH PROGRAM SUPPORT
 02/04/1988 - 09/30/2001 FY99: \$393,000 Total: \$2,187,865
Prin. Invest.: W MOOS
Tech. Officer: GSFC/D VITABLANO
CASE Category: 41 - AERONAUTICAL ENGR

NASA'S UNIVERSITY PROGRAM

MARYLAND

NAS 5 31373 **JOHNS HOPKINS UNIVERSITY** **5106**
 EOS INVESTIGATION
 12/13/1991 – 12/14/2001 FY99: \$0 Total: \$385,000
Prin. Invest.: J SALISBURY
Tech. Officer: GSFC/H BLODGET
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 5 32865 **JOHNS HOPKINS UNIVERSITY** **5107**
 DESIGN & DEVELOPMENT OF ADVANCED CAMERA SCIENCE
 08/25/1995 – 12/31/1999 FY99: \$377,353 Total: \$2,744,177
Prin. Invest.: D FORD, D ILLINGWORTH
Tech. Officer: GSFC/C KREBS
CASE Category: 42 – ASTRONAUTICAL ENGR

NAS 5 32985 **JOHNS HOPKINS UNIVERSITY** **5108**
 PHASE C/D DESIGN AND DEVELOPMENT OF THE FAR ULTRA- VOILET
 SPECTROSCOPIC EXPLORER (FUSE) MISSION
 11/22/1995 – 09/30/1999 FY99: \$17,035,603 Total: \$118,737,615
Prin. Invest.: H W MOOS
Tech. Officer: GSFC/D R MENGERS
CASE Category: 11 – ASTRONOMY

NAS 5 97179 **JOHNS HOPKINS UNIVERSITY** **5109**
 TIMED PHASE C/D LETTER CONTRACT
 06/16/1997 – 01/31/2000 FY99: \$38,592,000 Total: \$93,996,205
Prin. Invest.: D GRANT
Tech. Officer: GSFC/J J WOLFF
CASE Category: 11 – ASTRONOMY

NAS 5 97271 **JOHNS HOPKINS UNIVERSITY** **5110**
 AEROSPACE RESEARCH, DESIGN, AND DEVELOPMENT TASKS FOR NASA
 10/01/1997 – 09/30/2002 FY99: \$42,397,144 Total: \$59,939,272
Prin. Invest.: T COUGHLIN
Tech. Officer: GSFC/J WOLFF
CASE Category: 11 – ASTRONOMY

NCC 5 147 **JOHNS HOPKINS UNIVERSITY** **5111**
 GRAND CHALLENGE RESEARCH
 08/16/1996 – 12/31/1999 FY99: \$71,000 Total: \$1,201,000
Prin. Invest.: P OLSON
Tech. Officer: GSFC/JR FISCHER
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NGT 51413 **JOHNS HOPKINS UNIVERSITY** **5112**
 GSRP
 08/29/1995 – 08/31/1998 FY99: -\$52 Total: \$43,948
Prin. Invest.: D SALTZMAN
Tech. Officer: HQ/D GLASCO *Tech. Officer:* NONE
CASE Category: 43 – CHEMICAL ENGR

NGT 5 30132 **JOHNS HOPKINS UNIVERSITY** **5113**
 THIRD YEAR FUNDING: "REFINED SOIL HEAT AND MASS TRANSFER
 PHYSICS FOR IMPROVING THE UTILITY OF REM
 12/02/1997 – 08/31/1998 FY99: -\$1,422 Total: \$20,578
Prin. Invest.: M B PARLANGE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 40029 **JOHNS HOPKINS UNIVERSITY** **5114**
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 01/24/1997 – 01/31/2000 FY99: \$475,000 Total: \$1,295,000
Prin. Invest.: R C HENRY
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50259 **JOHNS HOPKINS UNIVERSITY** **5115**
 PROTEIN CRYSTALLIZATION AT INTERFACE STUDENT: JEFREY ERICKSON
 07/07/1999 – 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: K J STEBE
Tech. Officer: GSFC/L SMITH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50268 **JOHNS HOPKINS UNIVERSITY** **5116**
 SURFACTANT FACILITATED SPREADING
 07/08/1999 – 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: K J STEBE/VAN NGUYE
Tech. Officer: GSFC/L SMITH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 2945 **MORGAN STATE UNIVERSITY** **5117**
 THE ENGINEERING ENRICHMENT PROGRAM
 06/08/1995 – 12/31/1998 FY99: \$0 Total: \$298,955
Prin. Invest.: C WHITE
Tech. Officer: GSFC/D MENCHAN
CASE Category: 49 – ENGINEERING, OTHER

NAG 5 3508 **MORGAN STATE UNIVERSITY** **5118**
 FORGING A PARTNERSHIP: A TWENTY-FIRST CENTURY APPROACH TO
 THE INVESTIGATION OF SCIENTIFIC...
 10/31/1996 – 11/14/1999 FY99: \$850,000 Total: \$2,569,274
Prin. Invest.: E DELOATCH
Tech. Officer: GSFC/C SOFFEN
CASE Category: 11 – ASTRONOMY

NAG 5 4401 **MORGAN STATE UNIVERSITY** **5119**
 MODELING AND CHANGE POINT DETECTION IN MODIS ENGINE
 04/18/1997 – 12/31/1999 FY99: \$6,000 Total: \$36,000
Prin. Invest.: J SMID
Tech. Officer: GSFC/B MARKHAMR
CASE Category: 21 – MATHEMATICS

NAG 5 7136 **MORGAN STATE UNIVERSITY** **5120**
 CHARACTERIZATION AND SIMULATION OF GALLIUM NITRIDE ULTRAVIO-
 LETPHOTODETECTORS
 03/16/1998 – 03/14/2000 FY99: \$100,000 Total: \$200,000
Prin. Invest.: C J SCOTT
Tech. Officer: GSFC/B MOTT
CASE Category: 45 – ELECTRICAL ENGR

NAG 5 7623 **MORGAN STATE UNIVERSITY** **5121**
 FUNDING FOR 1998 ENGINEERING ENRICHMENT PROGRAM AT MSU
 08/03/1998 – 07/31/2000 FY99: \$60,000 Total: \$120,000
Prin. Invest.: D WHITE
Tech. Officer: GSFC/D MENCHAN
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 5 8574 MORGAN STATE UNIVERSITY 5122
SEM MULTIPURPOSE FACILITY/PHASE I
07/21/1999 - 07/14/2000 FY99: \$1,140,179 Total: \$1,140,179
Prin. Invest.: H WILLIAMS
Tech. Officer: GSFC/P HOLLOWAY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8857 MORGAN STATE UNIVERSITY 5123
INVESTIGATION OF THE MAGNETIC & ELECTRONIC PROPERTIES OF
METAL & METAL OXIDE FILMS & MULTILAYER FOR
09/28/1999 - 09/30/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: C WILLIAMS
Tech. Officer: GSFC/J CHITWOOD
CASE Category: 13 - PHYSICS

NAG 5 8860 MORGAN STATE UNIVERSITY 5124
SCIENCE ENGINEERING & MATHEMATICS (SEM) ENRICHMENT PROGRAM
FOR BALTIMORE MIDDLE & HIGH SCHOOL
09/28/1999 - 07/14/2000 FY99: \$357,205 Total: \$357,205
Prin. Invest.: H WILLIAMS
Tech. Officer: GSFC/D MENCHAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 998 MORGAN STATE UNIVERSITY 5125
SMART-SENSOR DESIGN INCORPORATING SIGNAL PROCESSING FOR
DATA-COMPRESSION AND FEATURE ENHANCEMENT
03/31/1998 - 01/11/2000 FY99: \$100,000 Total: \$200,000
Prin. Invest.: J E WHITNEY Prin. Invest.: NONE
Tech. Officer: JSC/K KRISHEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 122 MORGAN STATE UNIVERSITY 5126
MORGAN NETWORK RESOURCE TRAINING SITE
08/15/1995 - 08/14/2000 FY99: \$600,000 Total: \$2,444,523
Prin. Invest.: W LUPTON
Tech. Officer: GSFC/J BENNETT
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 199 MORGAN STATE UNIVERSITY 5127
LABORATORY STUDY OF THE BEHAVIOR OF SATURATED SEDIMENT
06/10/1997 - 05/31/2000 FY99: \$98,952 Total: \$370,324
Prin. Invest.: D C HELM
Tech. Officer: GSFC/B G BILLS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 204 MORGAN STATE UNIVERSITY 5128
THE MAGNETIC, TRANSPORT AND STRUCTURAL PROPERTIES OF
MAGNETIC OXIDE FILMS
06/11/1997 - 12/31/1999 FY99: \$40,124 Total: \$224,712
Prin. Invest.: C WILLIAMS
Tech. Officer: GSFC/J S CHITWOOD
CASE Category: 13 - PHYSICS

NGT 5 90053 MORGAN STATE UNIVERSITY 5129
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
02/20/1997 - 09/30/1999 FY99: \$0 Total: \$228,000
Prin. Invest.: E DELOATCH
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 44 - CIVIL ENGR

NCC 2 1041 TOWSON STATE UNIVERSITY 5130
THE EVOLUTION OF DUST IN THE MULTIPHASE INTERSTELLAR MEDIUM:
GRAIN DESTRUCTION PROCESS
06/03/1998 - 05/31/1999 FY99: \$0 Total: \$15,000
Prin. Invest.: M G WOLFIRE
Tech. Officer: ARC/D J HOLLENBACH
CASE Category: 11 - ASTRONOMY

NAG 1 1655 UNIVERSITY OF MARYLAND - COLLEGE PARK 5131
IMPROVED CFD TRANSONICS FOR ROTORCRAFT APPLICATIONS
11/16/1994 - 09/30/1998 FY99: \$0 Total: \$122,596
Prin. Invest.: J D BAEDER
Tech. Officer: LARC/K S BRENTNER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1730 UNIVERSITY OF MARYLAND - COLLEGE PARK 5132
IMPACT OF U.S. GOVERNMENT IN-HOUSE RESEARCH AND DEVELOPMENT
ON THE ADVANCEMENT OF AERODYNAMICS
06/05/1995 - 06/04/1998 FY99: -\$1 Total: \$75,000
Prin. Invest.: J D ANDERSON
Tech. Officer: LARC/D M BUSHNELL, LARC/R V HARRIS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1828 UNIVERSITY OF MARYLAND - COLLEGE PARK 5133
LARGE-EDDY SIMULATION OF RELAMINARIZATION AND RETRANSITION
04/11/1996 - 04/09/1998 FY99: -\$1,473 Total: \$78,482
Prin. Invest.: U PIOMELLI
Tech. Officer: LARC/C L STREETT, LARC/W L SELLERS, III
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1831 UNIVERSITY OF MARYLAND - COLLEGE PARK 5134
NEXT GENERATION ALGORITHMS FOR SHORTWAVE RADIATION BUDGETS
AND CLIMATE RESEARCH
04/30/1996 - 12/31/1999 FY99: \$0 Total: \$295,815
Prin. Invest.: R T PINKER
Tech. Officer: LARC/A B CARLSON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1832 UNIVERSITY OF MARYLAND - COLLEGE PARK 5135
DEVELOPMENT OF CORRECTIONS FOR BIOMASS BURNING EFFECTS IN
VERSION TWO OF GEWEX SRB ALGORITHM
04/30/1996 - 04/30/2000 FY99: \$0 Total: \$260,703
Prin. Invest.: R T PINKER
Tech. Officer: LARC/A B CARLSON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1880 UNIVERSITY OF MARYLAND - COLLEGE PARK 5136
LARGE EDDY SIMULATION OF THE SOUND EMISSION FROM UNSTEADY
FLOW SEPARATION
11/25/1996 - 11/30/1999 FY99: \$40,000 Total: \$140,001
Prin. Invest.: U PIOMELLI
Tech. Officer: LARC/J L THOMAS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1882 UNIVERSITY OF MARYLAND - COLLEGE PARK 5137
LARGE EDDY SIMULATION OF ATTACHMENT-LINE INSTABILITY
11/26/1996 - 11/30/1997 FY99: -\$3,166 Total: \$52,389
Prin. Invest.: U PIOMELLI
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1897 UNIVERSITY OF MARYLAND - COLLEGE PARK 5138
 INVESTIGATION OF TROPICAL TROPOSPHERIC WATER VAPOR MY 1/3
 02/13/1997 - 02/12/2000 FY99: \$54,000 Total: \$162,000
Prin. Invest.: A E DESSLER
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2024 UNIVERSITY OF MARYLAND - COLLEGE PARK 5139
 DIRECT MEASUREMENTS OF TROPOSPHERIC OZONE FROM TOMS DATA
 03/26/1998 - 01/31/2001 FY99: \$111,000 Total: \$226,000
Prin. Invest.: R D HUDSON
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1122 UNIVERSITY OF MARYLAND - COLLEGE PARK 5140
 PROPOSAL FOR FURTHER DEVELOPMENT, SUPPORT, AND ENHANCEMENT OF CONDUIT
 03/17/1997 - 03/31/1999 FY99: \$0 Total: \$120,013
Prin. Invest.: W S LEVINE
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1231 UNIVERSITY OF MARYLAND - COLLEGE PARK 5141
 USE OF ON-BALDE CONTROLS FOR HANDLING QUALITIES ENHANCEMENT
 06/24/1998 - 10/31/1999 FY99: \$37,000 Total: \$59,000
Prin. Invest.: R CELI, NONE
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1311 UNIVERSITY OF MARYLAND - COLLEGE PARK 5142
 INSENSITIVITY OF CONTROL SYSTEM PERFORMANCE TO CONTROLLER & SYSTEM PARAMETERS
 03/17/1999 - 03/31/2000 FY99: \$35,143 Total: \$35,143
Prin. Invest.: W S LEVINE
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1329 UNIVERSITY OF MARYLAND - COLLEGE PARK 5143
 EVALUATION OF METHODOLOGY FOR TESTING AND ANALYSIS OF ADVANCED ROTOR SYSTEMS
 06/01/1999 - 03/04/2000 FY99: \$137,436 Total: \$137,436
Prin. Invest.: I CHOPRA
Tech. Officer: ARC/W G WARBRODT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1352 UNIVERSITY OF MARYLAND - COLLEGE PARK 5144
 MECHANOSENSITIVE CHANNELS IN BACTERIA: FUNCTIONAL DOMAINS & MECHANISMS OF GATING
 07/27/1999 - 01/31/2000 FY99: \$132,814 Total: \$132,814
Prin. Invest.: S I SUKHAREV *Prin. Invest.:* NONE
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1488 UNIVERSITY OF MARYLAND - COLLEGE PARK 5145
 PRIMARY ZONE FUEL-AIR MIXING STUDIES FOR LOW NOX ADVANCED SUBSONIC COMBUSTOR DEVELOPMENT
 04/29/1993 - 07/31/1998 FY99: \$0 Total: \$260,996
Prin. Invest.: A K GUPTA, H L RUSSELL
Tech. Officer: GRC/T M SANDERS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1867 UNIVERSITY OF MARYLAND - COLLEGE PARK 5146
 CRITICAL DYNAMICS FOR AMBIENT TEMPERATURE AND LOW TEMPERATURE PHASE TRANSITIONS
 05/09/1996 - 05/08/2000 FY99: \$100,000 Total: \$322,000
Prin. Invest.: R A FERRELL
Tech. Officer: GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1960 UNIVERSITY OF MARYLAND - COLLEGE PARK 5147
 DIFFUSION FLAME STRUCTURE, SHAPE, EXTINCTION, GEOMETRICAL CONSIDERATION
 09/04/1996 - 05/30/1998 FY99: \$0 Total: \$149,207
Prin. Invest.: J L TORERO
Tech. Officer: GRC/D P STOCKER, GRC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1961 UNIVERSITY OF MARYLAND - COLLEGE PARK 5148
 FLAMMABILITY DIAGRAMS OF COMBUSTIBLE MATERIALS IN MICROGRAVITY
 09/04/1996 - 05/31/2000 FY99: \$87,602 Total: \$242,216
Prin. Invest.: J QUINTIERE
Tech. Officer: GRC/H ROSS
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2106 UNIVERSITY OF MARYLAND - COLLEGE PARK 5149
 UNIVERSITY RESEARCH AND TRAINING PROGRAM IN HYPERSONIC PROPULSION/AIRFRAME INTEGRATION
 02/05/1998 - 09/30/1999 FY99: \$50,000 Total: \$150,000
Prin. Invest.: M J LEWIS
Tech. Officer: GRC/S R THOMAS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2139 UNIVERSITY OF MARYLAND - COLLEGE PARK 5150
 SPECTRAL ELEMENT SIMULATIONS OF THERMAL CONVECTION IN A ROTATING HEMISPHERICAL SHELL WITH RADIAL G
 03/17/1998 - 01/05/2000 FY99: \$46,800 Total: \$101,000
Prin. Invest.: A DEANE
Tech. Officer: GRC/A CHAIT
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2206 UNIVERSITY OF MARYLAND - COLLEGE PARK 5151
 INVESTIGATION OF POB BOILING HEAT TRANSFER MECHANISMS IN MICROGRAVITY USING AN ARRAY OF SURFACE MOUNTED THERMISTORS
 10/28/1998 - 07/01/2000 FY99: \$121,300 Total: \$121,300
Prin. Invest.: J KIM
Tech. Officer: GRC/J B MCQUILLEN
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2223 UNIVERSITY OF MARYLAND - COLLEGE PARK 5152
 ROBUST DIAGNOSIS OF PLANETARY GEARTRAIN FAULTS ROBUST DIAGNOSIS OF PLANETARY GEARTRAIN FAULTS
 01/08/1999 - 11/24/2000 FY99: \$100,015 Total: \$100,015
Prin. Invest.: D J PINES
Tech. Officer: GRC/D G LEWICKI
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2228 UNIVERSITY OF MARYLAND - COLLEGE PARK 5153
 SUBCOOLED POOL BOILING HEAT TRANSFER MECHANISMS IN
 MICROGRAVITY: TERRIER-IMPROVED ORION SOUNDING RO
 02/12/1999 - 10/12/1999 FY99: \$36,114 Total: \$36,114
Prin. Invest.: P KIM
Tech. Officer: GRC/J MCQUILLEN
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 1101 UNIVERSITY OF MARYLAND - COLLEGE PARK 5154
 COMPREHENSIVE THEORETICAL & COMPUTATIONAL MODELING PRO-
 GRAM
 12/01/1988 - 04/30/1999 FY99: \$0 Total: \$4,589,801
Prin. Invest.: K PAPADOPOULOS
Tech. Officer: GSFC/S A CURTIS, GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 1129 UNIVERSITY OF MARYLAND - COLLEGE PARK 5155
 CLUSTER & CORONAL MASS EJECTIONS
 04/15/1989 - 03/14/1999 FY99: \$0 Total: \$377,895
Prin. Invest.: M A COPLAN
Tech. Officer: GSFC/K W OGILVIE
CASE Category: 13 - PHYSICS

NAG 5 1696 UNIVERSITY OF MARYLAND - COLLEGE PARK 5156
 PARTICIPATION IN TOMS MISSION
 07/15/1991 - 05/31/1998 FY99: \$0 Total: \$597,338
Prin. Invest.: R D HUDSON
Tech. Officer: GSFC/J R HERMAN, GSFC/R D MCPETERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2001 UNIVERSITY OF MARYLAND - COLLEGE PARK 5157
 SOLAR FLARE PHYSICS
 07/01/1992 - 12/31/1999 FY99: \$13,520 Total: \$686,249
Prin. Invest.: M R KUNDU, E J SCHMAHL, M J ASCHWANDER
Tech. Officer: GSFC/C J CRANNELL
CASE Category: 11 - ASTRONOMY

NAG 5 2380 UNIVERSITY OF MARYLAND - COLLEGE PARK 5158
 SEARCH FOR GALACTIC GAMMA-RAY LINE EMISSION USING BATSE
 09/29/1993 - 09/30/1998 FY99: -\$54 Total: \$237,224
Prin. Invest.: M LEVENTHAL
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2386 UNIVERSITY OF MARYLAND - COLLEGE PARK 5159
 ANNIHILATION RADIATION FROM THE MILKY-WAY GALAXY
 10/06/1993 - 09/30/1997 FY99: -\$1,218 Total: \$18,782
Prin. Invest.: M LEVENTHAL
Tech. Officer: GSFC/N GAHRELS
CASE Category: 11 - ASTRONOMY

NAG 5 2396 UNIVERSITY OF MARYLAND - COLLEGE PARK 5160
 AVHRR PATHFINDER LAND DATA VALIDATION
 10/13/1993 - 12/31/1997 FY99: -\$8,832 Total: \$206,315
Prin. Invest.: J TOWNSHEND
Tech. Officer: GSFC/K J RANSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2400 UNIVERSITY OF MARYLAND - COLLEGE PARK 5161
 ASTROPHYSICS CONFERENCE SUPPORT
 10/13/1993 - 09/30/1999 FY99: \$50,000 Total: \$175,000
Prin. Invest.: J D TRASKO
Tech. Officer: GSFC/S S HOLT
CASE Category: 11 - ASTRONOMY

NAG 5 2754 UNIVERSITY OF MARYLAND - COLLEGE PARK 5162
 PREPARATION OF FLIGHT OPERATIONS AND IWS INTERGRA- TION OF THE
 CELIAS EXPERIMENT ON THE SOHO SPACECRAFT
 10/18/1994 - 10/31/1999 FY99: \$0 Total: \$1,837,731
Prin. Invest.: F IPAVICH
Tech. Officer: GSFC/A POLAND
CASE Category: 11 - ASTRONOMY

NAG 5 2783 UNIVERSITY OF MARYLAND - COLLEGE PARK 5163
 THRESHOLDING COREGISTRATION, AND STOCHASTIC METHOD S OF VAL-
 IDATION OF RAINFALL ESTIMATES FROM SPACE
 11/10/1994 - 01/14/1998 FY99: -\$640 Total: \$284,360
Prin. Invest.: B KEDEM, D A SHORT
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2810 UNIVERSITY OF MARYLAND - COLLEGE PARK 5164
 THE SOLAR WIND AND SUPRATHERMAL ION COMPOSITION INVESTIGA-
 TION (SMS) ON THE WIND SPACECRAFT
 12/12/1994 - 03/14/1999 FY99: \$0 Total: \$1,512,800
Prin. Invest.: G GLOECKLER
Tech. Officer: GSFC/K W OGILVIE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 2856 UNIVERSITY OF MARYLAND - COLLEGE PARK 5165
 ANALYSES OF MULTISPECTRAL MULTIANGLE ASAS DATA ACQUIRED OVER
 BOREAL FOREST SITES
 12/29/1994 - 01/14/1998 FY99: -\$2,875 Total: \$223,355
Prin. Invest.: C A RUSSELL
Tech. Officer: GSFC/J IRONS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2865 UNIVERSITY OF MARYLAND - COLLEGE PARK 5166
 MISSION OPERATIONS AND DATA ANALYSIS FOR THE STEP SUBSYSTEM
 OF THE EPACT EXPERIMENT ON THE WIND
 01/09/1995 - 01/14/1999 FY99: \$0 Total: \$554,992
Prin. Invest.: G M MASON, D C HAMILTON
Tech. Officer: GSFC/T T VON ROSENVINGE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 2885 UNIVERSITY OF MARYLAND - COLLEGE PARK 5167
 THE CONTRIBUTION OF ACTIVE STARS TO THE DIFFUSE GA LACTIC GAM-
 MA-RAY BACKGROUND
 02/07/1995 - 02/14/1999 FY99: -\$223 Total: \$22,777
Prin. Invest.: S M WHITE
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2926 UNIVERSITY OF MARYLAND - COLLEGE PARK 5168
 MULTI-MISSION AND MULTISPECTRAL ASTROPHYSICS DATA CATALOG
 MANAGEMENT SYSTEM
 04/03/1995 - 06/14/2000 FY99: \$55,000 Total: \$269,211
Prin. Invest.: N ROUSSOPOULOS
Tech. Officer: GSFC/C Y CHEUNG
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2963 UNIVERSITY OF MARYLAND - COLLEGE PARK 5169
 SOLAR CYCLE DYNAMICS OF SOLAR MAGNETOSPHERIC AND HELIO-
 SPHERIC PARTICLES AND LONG-TERM ATMOSPHERIC..
 06/09/1995 - 09/30/2000 FY99: \$1,247,000 Total: \$4,114,335
Prin. Invest.: G M MASON
Tech. Officer: GSFC/T T VON ROSENVINGE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3028 UNIVERSITY OF MARYLAND - COLLEGE PARK 5170
 THE THEORETICAL PROPERTIES OF OLD STELLAR POPULATIONS
 10/02/1995 - 10/14/2000 FY99: -\$2,685 Total: \$285,608
Prin. Invest.: R A BELL
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3104 UNIVERSITY OF MARYLAND - COLLEGE PARK 5171
 INTEGRATION AND TESTS OF SUPERCONDUCTING ANGULAR ACCELEROMETERS WITH THE SUPERCONDUCTING GRAVITY...
 10/17/1995 - 11/30/1997 FY99: -\$1 Total: \$589,999
Prin. Invest.: H PAIK
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3134 UNIVERSITY OF MARYLAND - COLLEGE PARK 5172
 IMGRASS RADIATION AND REMOTE SENSING PROGRAMS IN SUPPORT OF BSRN
 01/23/1996 - 09/30/1999 FY99: \$0 Total: \$45,000
Prin. Invest.: D T PINKER
Tech. Officer: GSFC/D CHOW
CASE Category: 11 - ASTRONOMY

NAG 5 3172 UNIVERSITY OF MARYLAND - COLLEGE PARK 5173
 COMPARISON OF THE RADIATIVE AND PHYSIOLOGICAL EFFECTS OF DOUBLED CO2 ON THE GLOBAL CLIMATE ...
 02/22/1996 - 08/31/1999 FY99: \$0 Total: \$276,676
Prin. Invest.: L BOUNOUA
Tech. Officer: GSFC/P J SELLERS, GSFC/J G COLLATZ
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3243 UNIVERSITY OF MARYLAND - COLLEGE PARK 5174
 THE UNIVERSITY OF MARYLAND COOPERATION WITH CARPE
 05/21/1996 - 05/31/1999 FY99: \$0 Total: \$352,900
Prin. Invest.: C O JUSTICE
Tech. Officer: GSFC/C J TUCKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3277 UNIVERSITY OF MARYLAND - COLLEGE PARK 5175
 HIGH RESOLUTION SPECTRAL AND TEMPORAL STUDIES OF CYGNUS X-3 WITH XTE AND ASCA
 07/01/1996 - 01/14/1999 FY99: -\$8,333 Total: \$5,567
Prin. Invest.: M STARK
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3278 UNIVERSITY OF MARYLAND - COLLEGE PARK 5176
 TARGET OF OPPORTUNITY OBSERVATIONS OF BLACK-HOLE CANDIDATES

 07/03/1996 - 01/14/1998 FY99: -\$2,906 Total: \$20,065
Prin. Invest.: D SMITE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3361 UNIVERSITY OF MARYLAND - COLLEGE PARK 5177
 ISO DATA ANALYSIS IN PROGRAM FOR RESEARCH TO BE CONDUCTED AT THE UMD
 08/28/1996 - 08/31/2000 FY99: \$0 Total: \$196,200
Prin. Invest.: D G CURRLA
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3393 UNIVERSITY OF MARYLAND - COLLEGE PARK 5178
 THE OBSCURING MATERIAL IN LINE OF SIGHT TO SEYFERT 1 NUCLEUS OF NGC 3281; THE RELATIONSHIP ...
 09/06/1996 - 03/14/1999 FY99: \$0 Total: \$65,000
Prin. Invest.: A WILSON
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3425 UNIVERSITY OF MARYLAND - COLLEGE PARK 5179
 BEYOND HUMAN CONTROL
 09/14/1996 - 03/31/1999 FY99: \$0 Total: \$94,541
Prin. Invest.: K L NORMAN, E D MURPHY
Tech. Officer: GSFC/W F TRUSZKOWSKI
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 5 3454 UNIVERSITY OF MARYLAND - COLLEGE PARK 5180
 TERRESTRIAL MONITORING AT HIGH SPATIAL RESOLUTION: THE ROLE OF LANDSAT-TYPE SENSORS IN MISSION....
 10/07/1996 - 10/31/1999 FY99: \$278,983 Total: \$1,114,058
Prin. Invest.: D GOWARD
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3455 UNIVERSITY OF MARYLAND - COLLEGE PARK 5181
 ENHANCED ANTARCTIC RESEARCH WITH LANDSAT: ICE SHEET DYNAMICS, HISTORY, AND CARTOGRAPHY
 10/07/1996 - 10/31/1999 FY99: \$49,868 Total: \$162,570
Prin. Invest.: M A FAHNSTOCK
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3496 UNIVERSITY OF MARYLAND - COLLEGE PARK 5182
 JOINT SCIENTIFIC AND TECHNICAL COMMITTEE OF THE GL SYSTEM
 01/24/1997 - 07/31/1999 FY99: \$0 Total: \$283,505
Prin. Invest.: J TOWNSHEND
Tech. Officer: GSFC/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3532 UNIVERSITY OF MARYLAND - COLLEGE PARK 5183
 DEVELOP OF A DEMONSTRATION MODEL LOW-COST, HIGH COST-BASED TELEMEDICINE SYSTEM APPLICABLE FOR SPACE AND
 12/23/1996 - 11/30/1998 FY99: \$0 Total: \$93,106
Prin. Invest.: D S LIU
Tech. Officer: GSFC/C DOARN
CASE Category: 56 - MEDICAL

NAG 5 3548 UNIVERSITY OF MARYLAND - COLLEGE PARK 5184
 RADAR BACKSCATTER MODELING AND ALGORITHM DEVELOPMENT FOR FOREST PARAMETERS RETRIEVAL FROM SAR DATA
 11/27/1996 - 11/30/1999 FY99: \$104,926 Total: \$301,651
Prin. Invest.: S LIANG, G SUN
Tech. Officer: GSFC/J RANSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3678 UNIVERSITY OF MARYLAND - COLLEGE PARK 5185
 TROPOSPHERIC CONVECTION AND STRATOSPHERE-TROPOSPHERE ON PHOTOCHEMISTRY, AEROSOLS, AND CLIMATE
 01/04/1997 - 01/14/2000 FY99: \$285,000 Total: \$830,000
Prin. Invest.: K E PICKERING
Tech. Officer: GSFC/M D HALL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3739 UNIVERSITY OF MARYLAND - COLLEGE PARK 5186
 CLIMATIC EFFECTS OF VOLCANIC ERUPTIONS
 02/25/1997 - 09/30/1998 FY99: -\$50,489 Total: \$59,511
Prin. Invest.: G L STENCHIKOV
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3832 UNIVERSITY OF MARYLAND - COLLEGE PARK 5187
 THE NATURE OF THE X-RAY SOURCE IN THE PRECATACLYSM
 02/10/1997 - 02/14/1999 FY99: -\$5,345 Total: \$20,655
Prin. Invest.: S M WHITE
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3836 UNIVERSITY OF MARYLAND - COLLEGE PARK 5188
 LOW LUMINOSITY ACCRETION ONTO COMPACT OBJECTS
 02/11/1997 - 02/14/2000 FY99: \$79,000 Total: \$219,000
Prin. Invest.: J L WANG
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3840 UNIVERSITY OF MARYLAND - COLLEGE PARK 5189
 MAGNETOHYDRODYNAMIC MODELS OF THE COLD INTERSTELLA
 02/14/1997 - 02/14/2000 FY99: \$68,400 Total: \$217,500
Prin. Invest.: E C OSTRIKER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3846 UNIVERSITY OF MARYLAND - COLLEGE PARK 5190
 REMOTE SENSING OF SAHEL PRIMARY PRODUCTION
 01/24/1997 - 09/30/1997 FY99: -\$129 Total: \$219,871
Prin. Invest.: D D PRINCE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3850 UNIVERSITY OF MARYLAND - COLLEGE PARK 5191
 GLOBAL MAPPING OF VEGETATIVE LAND COVER
 01/24/1997 - 12/31/1997 FY99: -\$24,126 Total: \$169,095
Prin. Invest.: D TOWNSHEND
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3960 UNIVERSITY OF MARYLAND - COLLEGE PARK 5192
 THE EFFECT OF VARIATIONS IN PACIFIC FRESH-WATER AN INDIAN OCEAN
 02/18/1997 - 01/31/2000 FY99: \$126,332 Total: \$350,884
Prin. Invest.: R WAJSOWICZ
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4006 UNIVERSITY OF MARYLAND - COLLEGE PARK 5193
 A STUDY OF THE SURFACE PROPERTIES & ICE DYNAMICS O SHEET USING SAR
 03/06/1997 - 12/31/1998 FY99: \$0 Total: \$77,543
Prin. Invest.: D FAHNESTOCK
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4026 UNIVERSITY OF MARYLAND - COLLEGE PARK 5194
 ELECTRON TIME-OF-FLIGHT KINEMATICS IN SOLAR FLARES
 03/13/1997 - 02/28/1999 FY99: -\$5,897 Total: \$114,103
Prin. Invest.: D J ASCHWANDEN
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 4056 UNIVERSITY OF MARYLAND - COLLEGE PARK 5195
 SATELLITE BASED IDENTIFICATION OF LINKED VEGETATIO SURFACE TEM-
 PERATURE ANOMALY AREAS
 03/11/1997 - 03/14/2000 FY99: \$241,200 Total: \$400,350
Prin. Invest.: J R TOWNSHEND
Tech. Officer: GSFC/C J TUCKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4080 UNIVERSITY OF MARYLAND - COLLEGE PARK 5196
 OBSERVATIONS OF COMETS AND ASTEROIDS
 04/11/1997 - 11/30/1999 FY99: \$100,000 Total: \$300,000
Prin. Invest.: D F A'HEARN
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAG 5 4092 UNIVERSITY OF MARYLAND - COLLEGE PARK 5197
 A SPECTROSCOPIC INVESTIGATION INTO THE "MISSING UV
 03/10/1997 - 12/31/1999 FY99: \$0 Total: \$135,046
Prin. Invest.: D C BALACHANDRAN
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4096 UNIVERSITY OF MARYLAND - COLLEGE PARK 5198
 CRYOGENIC SAPPHIRE MONOCRYSTALLINE OPTICAL CAVITY N AND PRE-
 CISE TIME MEASUREMENTS
 03/10/1997 - 03/14/1998 FY99: -\$6 Total: \$29,994
Prin. Invest.: P P RICHARD
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4106 UNIVERSITY OF MARYLAND - COLLEGE PARK 5199
 OSSE OBSERVATIONS OF HARD X-RAY BRIGHT SEYFERT 2 G
 03/24/1997 - 03/31/1999 FY99: -\$2 Total: \$7,266
Prin. Invest.: G M MADEJSKI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 4152 UNIVERSITY OF MARYLAND - COLLEGE PARK 5200
 CROSS CORRELATION OF SOLAR WIND PLASMA PARAMETERS SOHO AND
 SWE ON WIND
 03/25/1997 - 03/31/2000 FY99: \$0 Total: \$147,530
Prin. Invest.: D A COPLAN
Tech. Officer: GSFC/D EVANS
CASE Category: 13 - PHYSICS

NAG 5 4186 UNIVERSITY OF MARYLAND - COLLEGE PARK 5201
 A STUDY WITH ALTIMETRY OF LOW FREQUENCY VARIABILIT KUROSHIO
 EXTENSION
 04/01/1997 - 03/31/2000 FY99: \$68,289 Total: \$194,265
Prin. Invest.: L WANG
Tech. Officer: GSFC/N MAYNARD
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4201 UNIVERSITY OF MARYLAND - COLLEGE PARK 5202
 X-RAY EMISSION FROM COMETS
 03/17/1997 - 03/31/2000 FY99: \$40,000 Total: \$120,000
Prin. Invest.: D F A'HEARN
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4255 UNIVERSITY OF MARYLAND - COLLEGE PARK 5203
 VARIABLE ICE-SHEET DISCHARGE & COASTAL CHANGE IN W
 04/04/1997 - 12/31/1999 FY99: \$0 Total: \$81,290
Prin. Invest.: M FAHNESTOCK
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4278 UNIVERSITY OF MARYLAND - COLLEGE PARK 5204
 GLOBAL MHD SIMULATION OF THE SOLAR NEBULA
 04/01/1997 - 03/31/2000 FY99: \$65,750 Total: \$144,586
Prin. Invest.: P M STONE
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4313 UNIVERSITY OF MARYLAND - COLLEGE PARK 5205
 A SPACE PHYSICS ANALYSIS AND PLANNING TOOL
 05/09/1997 - 06/30/2000 FY99: \$105,000 Total: \$312,500
Prin. Invest.: D C GOODRICH
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4352 UNIVERSITY OF MARYLAND - COLLEGE PARK 5206
 ADVANCED CALORIMETER FOR COMPOSITION OF ELEMENTS O (ACCESS)
 TO STUDY >10 TEVCOSMIC RAYS
 04/14/1997 - 01/31/1999 FY99: \$0 Total: \$27,597
Prin. Invest.: D SEO
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 4429 UNIVERSITY OF MARYLAND - COLLEGE PARK 5207
 A LABORATORY AND OBSERVATIONAL STUDY OF THE CHEMIC PROTO-
 STELLAR NEBULAE
 05/06/1997 - 03/31/2000 FY99: \$55,600 Total: \$137,670
Prin. Invest.: D G MUNDY
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4487 UNIVERSITY OF MARYLAND - COLLEGE PARK 5208
 CONTINUED MONITORING OF THE EMISSION FROM GRO J174
 05/08/1997 - 04/30/1999 FY99: \$0 Total: \$17,282
Prin. Invest.: M STARK
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4638 UNIVERSITY OF MARYLAND - COLLEGE PARK 5209
 DEVELOPMENT OF ION AND ELECTRON PLASMA INSTRUMENT W DESIGN
 CONCEPTS FOR THE MINIMUM SOLAR MISSION
 05/30/1997 - 05/31/2000 FY99: \$0 Total: \$18,951
Prin. Invest.: M A COPLAN
Tech. Officer: GSFC/E C SITTLER
CASE Category: 13 - PHYSICS

NAG 5 4662 UNIVERSITY OF MARYLAND - COLLEGE PARK 5210
 DATA ASSIMILATIVE ANALYSIS OF THE GGS DATA SET USI
 06/05/1997 - 05/31/2000 FY99: \$0 Total: \$59,219
Prin. Invest.: D E LOPEZ
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4740 UNIVERSITY OF MARYLAND - COLLEGE PARK 5211
 THEORETICAL MODELS OF COMETARY OBSERVATIONS
 06/04/1997 - 05/31/1999 FY99: \$0 Total: \$49,737
Prin. Invest.: D F A'HEARN
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4769 UNIVERSITY OF MARYLAND - COLLEGE PARK 5212
 ISOTOPIC AND GEOCHEMICAL INVESTIGATIONS OF METEORI
 06/09/1997 - 07/31/1998 FY99: -\$102 Total: \$63,501
Prin. Invest.: D J WALKER
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4809 UNIVERSITY OF MARYLAND - COLLEGE PARK 5213
 ADVANCED AUTOMATION CONCEPTS IN SPACEFLIGHT DYNAMI NAVIGA-
 TION
 07/30/1997 - 12/31/1999 FY99: \$0 Total: \$141,175
Prin. Invest.: D SCHMIDT, NONE
Tech. Officer: GSFC/D WEIDOW
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 4811 UNIVERSITY OF MARYLAND - COLLEGE PARK 5214
 DEFORESTRATION AND DEGRADATION IN SOUTHERN AND CEN
 06/25/1997 - 10/31/1999 FY99: \$0 Total: \$506,880
Prin. Invest.: S PRINCE
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4861 UNIVERSITY OF MARYLAND - COLLEGE PARK 5215
 CLIMATE CHANGE, EXTREME COASTAL WATER LEVEL EVENTS EROSION
 06/20/1997 - 06/30/1999 FY99: \$0 Total: \$140,000
Prin. Invest.: B DOUGLAS
Tech. Officer: GSFC/M BALTUCK
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4954 UNIVERSITY OF MARYLAND - COLLEGE PARK 5216
 ABUNDANCES OF ELEMENTS RELATIVE TO HYDROGEN IN THE
 06/23/1997 - 06/14/1999 FY99: \$0 Total: \$57,994
Prin. Invest.: D M WHITE
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 5056 UNIVERSITY OF MARYLAND - COLLEGE PARK 5217
 ANALYTIC AND MONTE CARLO STUDIES OF ENERGETIC PARTICLE TRANS-
 PORT
 03/29/1996 - 03/31/1999 FY99: \$0 Total: \$60,000
Prin. Invest.: J A EARL
Tech. Officer: GSFC/H C NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5061 UNIVERSITY OF MARYLAND - COLLEGE PARK 5218
 SEARCHING FOR ANTIMATTER AND COSMIC RAY STUDIES USING BESS
 05/09/1996 - 11/30/1999 FY99: \$0 Total: \$293,600
Prin. Invest.: E S SEO
Tech. Officer: GSFC/H C NEDDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5062 UNIVERSITY OF MARYLAND - COLLEGE PARK 5219
 THE ADVANCED THIN IONIZATION CALORIMETER (ATIC) BALLOON EXPERIMENT
 03/29/1996 - 12/31/1999 FY99: \$296,751 Total: \$1,262,797
Prin. Invest.: E S SEO
Tech. Officer: GSFC/H C NEDDLEMAN, GSFC/B A MARRITT
CASE Category: 13 - PHYSICS

NAG 5 5083 UNIVERSITY OF MARYLAND - COLLEGE PARK 5220
 PROTON MAGNETIC SPECTROMETER FOR CUSP MEASUREMENTS
 06/14/1996 - 12/31/1999 FY99: \$0 Total: \$221,265
Prin. Invest.: M A COPLAN
Tech. Officer: GSFC/L W CURKIN
CASE Category: 13 - PHYSICS

NAG 5 5155 UNIVERSITY OF MARYLAND - COLLEGE PARK 5221
 OPTIMIZED CALORIMETER FOR ACCESS MEASUREMENTS OF Z-1-26 NUCLEI AND ELECTRONS
 03/26/1998 - 12/31/1999 FY99: \$121,000 Total: \$218,000
Prin. Invest.: E S SEO
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5161 UNIVERSITY OF MARYLAND - COLLEGE PARK 5222
 GLOBAL SOIL MOISTURE DATA SET FROM SATELLITE AND G FOR CLIMATIC STUDIES & EVAL. OF THE HYDROLOGICAL
 07/18/1997 - 07/14/1999 FY99: \$0 Total: \$100,000
Prin. Invest.: K VINNIKOV
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5163 UNIVERSITY OF MARYLAND - COLLEGE PARK 5223
 TOPOGRAPHIC EFFECTS ON SOLAR RADIATION AND REMOTEL RADIANCES
 07/18/1997 - 02/28/1999 FY99: -\$371 Total: \$63,386
Prin. Invest.: R DUBAYAH
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5204 UNIVERSITY OF MARYLAND - COLLEGE PARK 5224
 COSMIC-RAY ORIGIN, ACCELERATION, AND PROPAGATION SELECTED UNDER THE PRESIDENTIAL EARLY CAREER AWARD
 06/24/1998 - 06/30/2003 FY99: \$100,000 Total: \$200,000
Prin. Invest.: E S SEO
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5206 UNIVERSITY OF MARYLAND - COLLEGE PARK 5225
 COSMIC RAY ENERGISTICS AND MASS (CREAM) COSMIC RAY ENERGISTICS AND MASS (CREAM)
 09/22/1998 - 11/30/1999 FY99: -\$12,027 Total: \$232,027
Prin. Invest.: E S SEO
Tech. Officer: WFF/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5225 UNIVERSITY OF MARYLAND - COLLEGE PARK 5226
 GRANT NAG5-5225 FOR ANTIMATTER AND COSMIC RAY STUDIES USING BESS. PI DR. EUN-SUK SEO
 03/16/1999 - 03/11/2002 FY99: \$97,000 Total: \$97,000
Prin. Invest.: E S SEO
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6004 UNIVERSITY OF MARYLAND - COLLEGE PARK 5227
 CHARACTERIZING LAND-COVER HETEROGENEITY AND LAND-C SENSOR SATELLITE DATA
 08/28/1997 - 12/14/1999 FY99: \$0 Total: \$501,134
Prin. Invest.: D DEFRIES
Tech. Officer: HQ/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6044 UNIVERSITY OF MARYLAND - COLLEGE PARK 5228
 WASP: A WIDEBAND AUTOCORRELATOR FOR HETERODYNE SP
 07/24/1997 - 06/30/2000 FY99: \$36,733 Total: \$109,977
Prin. Invest.: D HARRIS
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 6059 UNIVERSITY OF MARYLAND - COLLEGE PARK 5229
 COLLISIONLESS SHOCK PHENOMENA IN THE SOLAR ATMOSPHERIC RADIO EMISSION
 07/29/1997 - 06/30/2000 FY99: \$79,367 Total: \$139,548
Prin. Invest.: D THEJAPPA
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6069 UNIVERSITY OF MARYLAND - COLLEGE PARK 5230
 BOREAL ECOSYSTEM-ATMOSPHERE INFORMATION SYSTEMS DE
 07/28/1997 - 06/30/1999 FY99: \$0 Total: \$92,479
Prin. Invest.: K F HUEMMERICH
Tech. Officer: GSFC/F G HALL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6094 UNIVERSITY OF MARYLAND - COLLEGE PARK 5231
 COMPILATION OF GLOBAL TERRESTRIAL PRIMARY PRODUCTIVITY
 09/05/1997 - 08/31/1999 FY99: \$0 Total: \$113,538
Prin. Invest.: D PRINCE
Tech. Officer: HQ/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6141 UNIVERSITY OF MARYLAND - COLLEGE PARK 5232
 SPECTROSCOPY OF X-RAY EMISSION FROM COMETS P/ENCKE
 08/01/1997 - 07/31/1999 FY99: \$0 Total: \$16,200
Prin. Invest.: C LISSE
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6142 UNIVERSITY OF MARYLAND - COLLEGE PARK 5233
 HARD X-RAY SOURCES IN ACTIVE GALACTIC NUCLEI WITH
 08/01/1997 - 07/31/1999 FY99: \$0 Total: \$19,000
Prin. Invest.: A WILSON
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6152 UNIVERSITY OF MARYLAND - COLLEGE PARK 5234
 TO SUPPORT BASIC RESEARCH IN THE DEVELOPMENT OF A NUMERICAL
 SIMULATION OF THE MHD EQUATIONS IN SPHE
 09/08/1997 - 07/14/2000 FY99: \$151,389 Total: \$385,055
Prin. Invest.: A DEANE, NONE
Tech. Officer: GSFC/M L GOLDSTEIN
CASE Category: 13 - PHYSICS

NAG 5 6155 UNIVERSITY OF MARYLAND - COLLEGE PARK 5235
 SEARCH FOR X-RAYS FROM COMETS P/ENCKE AND CHALE-B
 09/11/1997 - 08/31/1998 FY99: \$0 Total: \$7,400
Prin. Invest.: C LISSE
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6190 UNIVERSITY OF MARYLAND - COLLEGE PARK 5236
 MAGNETIC RECONNECTION AND ASSOCIATED WAVE AND PART LISION-
 LESS PLASMA
 08/13/1997 - 06/30/2000 FY99: \$46,667 Total: \$140,000
Prin. Invest.: D F DRAKE
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6234 UNIVERSITY OF MARYLAND - COLLEGE PARK 5237
 THE INTERACTION OF LUMINOUS BLUE VARIABLES WITH TH
 08/19/1997 - 08/14/1999 FY99: \$0 Total: \$3,900
Prin. Invest.: S M WHITE
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6256 UNIVERSITY OF MARYLAND - COLLEGE PARK 5238
 COMPARISON BETWEEN GLOBAL MHD SIMULATION AND MULTI OBSERVA-
 TIONS
 08/27/1997 - 08/31/1999 FY99: \$0 Total: \$60,000
Prin. Invest.: D E LOPEZ
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6257 UNIVERSITY OF MARYLAND - COLLEGE PARK 5239
 RESEARCH IN SOLAR RADIO ASTRONOMY AT SHORT WAVELEN
 08/27/1997 - 08/31/2000 FY99: \$29,167 Total: \$149,000
Prin. Invest.: D KUNDU
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6282 UNIVERSITY OF MARYLAND - COLLEGE PARK 5240
 DETECTING THE LOCATION, SPATIAL EXTENT, RATES AND TROPICAL
 DEFORESTATION
 09/22/1997 - 12/31/1999 FY99: \$119,762 Total: \$498,105
Prin. Invest.: J TOWNSHEND
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6318 UNIVERSITY OF MARYLAND - COLLEGE PARK 5241
 GLOBAL HELIOSPHERIC STRUCTURE & DYNAMICS & INVEST. OF ADV. DATA
 STORAGE & HANDLING TECHNIQUES FOR SI
 10/02/1997 - 09/30/1998 FY99: -\$47 Total: \$74,953
Prin. Invest.: C C GOODRICH, NONE
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6319 UNIVERSITY OF MARYLAND - COLLEGE PARK 5242
 COMBINING REMOTE SENSING AND HYDROLOGICAL MODELING ENERGY
 BALANCE STUDIES
 09/11/1997 - 08/31/2000 FY99: \$0 Total: \$453,762
Prin. Invest.: R DUBAYAH
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6364 UNIVERSITY OF MARYLAND - COLLEGE PARK 5243
 A VERSION 2 AVHRR MULTIREOLUTION LAND PATHFINDER
 09/17/1997 - 06/30/1999 FY99: \$0 Total: \$485,006
Prin. Invest.: J TOWNSHEND
Tech. Officer: GSFC/T JANEOTS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6421 UNIVERSITY OF MARYLAND - COLLEGE PARK 5244
 GLOBAL VEGETATION DYNAMICS
 09/26/1997 - 08/31/2000 FY99: \$40,176 Total: \$513,076
Prin. Invest.: S D PRINCE
Tech. Officer: GSFC/S PRINCE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6426 UNIVERSITY OF MARYLAND - COLLEGE PARK 5245
 ENERGETIC PARTICLE PROCESSES IN THE HELIOSPHERE & INTERSTEL-
 LAR SPACE
 10/07/1997 - 04/30/1999 FY99: \$0 Total: \$145,000
Prin. Invest.: D LEROUX
Tech. Officer: GSFC/V JONES
CASE Category: 11 - ASTRONOMY

NAG 5 6443 UNIVERSITY OF MARYLAND - COLLEGE PARK 5246
 RESEARCH IN SPACE OPERATIONS AND TELEROBOTICS
 11/12/1997 - 10/31/1999 FY99: \$62,500 Total: \$812,500
Prin. Invest.: D AKIN
Tech. Officer: GSFC/D LAVERY
CASE Category: 11 - ASTRONOMY

NAG 5 6459 UNIVERSITY OF MARYLAND - COLLEGE PARK 5247
 VALIDATING MODIS/MISR LAND SURFACE REFLECTING AND ALBEDO
 PRODUCTS
 10/14/1997 - 09/30/2000 FY99: \$7,442 Total: \$192,357
Prin. Invest.: S LIANG
Tech. Officer: GSFC/D STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6464 UNIVERSITY OF MARYLAND - COLLEGE PARK 5248
 EOS VALIDATION ACTIVITY IN A DESERT ENCROACHMENT ZONE OF SUB-
 SAHEL AFRICA
 10/14/1997 - 09/30/2000 FY99: \$8,765 Total: \$294,216
Prin. Invest.: R PINKER
Tech. Officer: GSFC/D STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6483 UNIVERSITY OF MARYLAND - COLLEGE PARK 5249
 EVALUATION OF OPERATIONAL LONGWAVE RADIATION BUDGE T PARAME-
 TERS USING THE GOES SOUNDERS
 11/18/1997 - 09/30/2000 FY99: \$0 Total: \$410,820
Prin. Invest.: P ELLINGSON
Tech. Officer: GSFC/J DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6509 UNIVERSITY OF MARYLAND - COLLEGE PARK 5250
 GEOMORPHIC ANALYSIS OF THE TERRAINS ON BOTH EARTH & MARS
 SPOP.9/97-9/98
 10/30/1997 - 01/31/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: R DUBAYAH
Tech. Officer: GSFC/J GARVIN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6526 UNIVERSITY OF MARYLAND - COLLEGE PARK 5251
 MECHANOSENSITIVE ION CHANNELS IN BACTERIA
 04/02/1998 - 02/28/2000 FY99: \$72,376 Total: \$243,244
Prin. Invest.: S I SUKHAREV
Tech. Officer: GSFC/L P CHAMBERS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6547 UNIVERSITY OF MARYLAND - COLLEGE PARK 5252
 ORIGIN AND IMPACT OF NUCLEAR ACTIVITY IN GALAXIES (LTSA)
 10/29/1997 - 10/31/1999 FY99: \$30,595 Total: \$53,752
Prin. Invest.: S VEILLEUX
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6616 UNIVERSITY OF MARYLAND - COLLEGE PARK 5253
 NEW METHODS FOR MEASURING ICE MOTION: THE FIELD COMPONENT
 REQUIRED FOR SARINTERFEROMETRY
 11/18/1997 - 06/30/1999 FY99: \$0 Total: \$98,551
Prin. Invest.: M FAHNESTOCK
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6617 UNIVERSITY OF MARYLAND - COLLEGE PARK 5254
 ADVANCED CENTER FOR GLOBAL REMOTE SENSING STUDIES
 11/18/1997 - 11/14/1998 FY99: \$0 Total: \$430,000
Prin. Invest.: D JAJA
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6630 UNIVERSITY OF MARYLAND - COLLEGE PARK 5255
 COREGISTRATION, THRESHOLDING, AND STOCHASTIC METHODS OF VALIDATION OF RAINFALL ESTIMATES FROM SPAN
 12/05/1997 - 01/14/2000 FY99: \$65,000 Total: \$165,000
Prin. Invest.: B KEDEM
Tech. Officer: GSFC/O A THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6667 UNIVERSITY OF MARYLAND - COLLEGE PARK 5256
 EVALUATION OF ACCURACIES IN GEOPHYSICAL PARAMETERS DERIVED FROM PATHFINDER DATA
 12/10/1997 - 12/31/1999 FY99: \$0 Total: \$240,991
Prin. Invest.: P PINKER
Tech. Officer: GSFC/J DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6682 UNIVERSITY OF MARYLAND - COLLEGE PARK 5257
 INTERANNUAL VARIABILITY, TRENDS, AND TRACER CORRELATIONS IN THE UARS DATA SET
 12/08/1997 - 11/30/1999 FY99: \$52,814 Total: \$103,566
Prin. Invest.: D B CONSIDINE
Tech. Officer: GSFC/A DOUGLASS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6699 UNIVERSITY OF MARYLAND - COLLEGE PARK 5258
 ENHANCED METADATA EXTRACTION FOR NASA'S REGIONAL VALIDATION CENTERS SYSTEM
 12/12/1997 - 03/31/2000 FY99: \$20,000 Total: \$117,770
Prin. Invest.: D NETANYAHU
Tech. Officer: GSFC/R CROMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 6750 UNIVERSITY OF MARYLAND - COLLEGE PARK 5259
 ANALYSIS TOOLS FOR IR LINE AND CONTINUUM OBSERVATIONS; COBE AND THE STRUCTURE OF THE GALACTIC DISC
 01/12/1998 - 01/14/2000 FY99: \$68,000 Total: \$137,447
Prin. Invest.: M WOLFIRE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6958 UNIVERSITY OF MARYLAND - COLLEGE PARK 5260
 RXTE PROPOSAL - X-RAY FLARES FROM THE YOUNG ACTIVE K DWARF AB DORADUS
 02/06/1998 - 01/31/2000 FY99: \$0 Total: \$26,442
Prin. Invest.: S WHITE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 6970 UNIVERSITY OF MARYLAND - COLLEGE PARK 5261
 MACHINE LEARNING TO IMPROVE LAND COVER CLASSIFICATIONS FROM MULTISENSOR AND MULTITEMPORAL DATA
 03/12/1998 - 02/28/2001 FY99: \$48,651 Total: \$145,029
Prin. Invest.: R E DEFRIES
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7058 UNIVERSITY OF MARYLAND - COLLEGE PARK 5262
 ICE FLOW IN THE NORTHEAST GREENLAND ICE STREAM: MEASUREMENT AND ANALYSIS
 03/04/1998 - 02/28/2001 FY99: \$111,687 Total: \$162,040
Prin. Invest.: M FAHNESTOCK
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7069 UNIVERSITY OF MARYLAND - COLLEGE PARK 5263
 TRANSPORT OF ENERGETIC PARTICLES IN THE GALAXY - A TP
 03/02/1998 - 02/29/2000 FY99: \$69,040 Total: \$135,856
Prin. Invest.: A LUKASIAK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7111 UNIVERSITY OF MARYLAND - COLLEGE PARK 5264
 SOLAR WIND AND SUPRATHERMAL ION COMPOSITION ON WIND
 03/25/1998 - 03/14/2000 FY99: \$450,000 Total: \$900,000
Prin. Invest.: G GLOECKLER
Tech. Officer: GSFC/K OBILVIE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7126 UNIVERSITY OF MARYLAND - COLLEGE PARK 5265
 DYNAMIC QUERIES INTERFACES FOR THE EOSDIS INFORMATION SYSTEM
 02/26/1998 - 12/31/1999 FY99: \$136,299 Total: \$281,299
Prin. Invest.: B SHNEIDERMAN
Tech. Officer: GSFC/C ROUFF
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 7141 UNIVERSITY OF MARYLAND - COLLEGE PARK 5266
 PIONEER 10/11 AND ULYSSES STUDY OF ENERGETIC PARTICLES IN THE-
 HELIOSPHERE
 03/12/1998 - 02/28/2000 FY99: \$130,667 Total: \$224,000
 Prin. Invest.: F B MCDONALD
 Tech. Officer: GSFC/J LING
 CASE Category: 11 - ASTRONOMY

NAG 5 7145 UNIVERSITY OF MARYLAND - COLLEGE PARK 5267
 EMISSION PROCESSES ASSOCIATED WITH SOLAR TYPE III RADIO BURSTS
 03/23/1998 - 04/14/2000 FY99: \$54,249 Total: \$82,967
 Prin. Invest.: T GOLLA
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 7180 UNIVERSITY OF MARYLAND - COLLEGE PARK 5268
 MEV-ENERGY ELECTRONS IN SOLAR FLARES
 03/31/1998 - 03/31/2000 FY99: \$0 Total: \$13,700
 Prin. Invest.: M R KUNDU
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7228 UNIVERSITY OF MARYLAND - COLLEGE PARK 5269
 MO & DA PHASE FOR THE SUPRATHERMAL THROUGH ENERGETIC PARTICLE
 DETECTOR (STEP) SUBSYSTEM OF THE EPA
 04/24/1998 - 10/14/1999 FY99: \$0 Total: \$220,000
 Prin. Invest.: G MASON
 Tech. Officer: GSFC/T VONROSENGE
 CASE Category: 13 - PHYSICS

NAG 5 7232 UNIVERSITY OF MARYLAND - COLLEGE PARK 5270
 CORONAL HEATING AND TEMPERATURE DISTRIBUTIONS
 04/08/1998 - 04/30/2000 FY99: \$0 Total: \$34,126
 Prin. Invest.: S M WHITE
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 7233 UNIVERSITY OF MARYLAND - COLLEGE PARK 5271
 3-DIMENSIONAL ANALYSIS OF ACTIVE REGION LOOPS AND TESTS OF
 CORONAL HEATING MODELS
 04/08/1998 - 09/30/1998 FY99: \$34,102 Total: \$23,090
 Prin. Invest.: M J ASCHWANDEN Prin. Invest.: NONE
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 7240 UNIVERSITY OF MARYLAND - COLLEGE PARK 5272
 OSSE OBSERVATIONS AND MAPPING OF 511 KEV POSITRON ANNIHILATION
 RADIATION
 04/16/1998 - 04/14/1999 FY99: \$0 Total: \$6,300
 Prin. Invest.: M LEVENTHAL
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7263 UNIVERSITY OF MARYLAND - COLLEGE PARK 5273
 VERTICAL TRANSPORT PROCESSES IN THE SASS/GMI CHEMICAL
 TRANSPORT MODEL: DEVELOPMENT, EVALUATION, AND
 04/29/1998 - 04/30/2000 FY99: \$65,980 Total: \$106,009
 Prin. Invest.: K PICKERING
 Tech. Officer: GSFC/R W STEWART
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7345 UNIVERSITY OF MARYLAND - COLLEGE PARK 5274
 XTE PROPOSAL (30004) - X-RAY FLARES FROM THE ACTIVE BINARY II
 PEG
 06/01/1998 - 05/31/2000 FY99: \$0 Total: \$10,076
 Prin. Invest.: S M WHITE
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7370 UNIVERSITY OF MARYLAND - COLLEGE PARK 5275
 TWO UNSOLVED PROBLEMS IN SOLAR PHYSICS
 05/06/1998 - 04/30/2000 FY99: \$0 Total: \$41,922
 Prin. Invest.: M KUNDU
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 7392 UNIVERSITY OF MARYLAND - COLLEGE PARK 5276
 EUVE SCANNER PHOTOMETRIC OBSERVATIONS OF THE X-RAY/EUV EMIS-
 SION FROM COMET P/ENCKE
 05/12/1998 - 05/14/1999 FY99: \$0 Total: \$11,520
 Prin. Invest.: C M LISSE
 Tech. Officer: GSFC/R J OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 7419 UNIVERSITY OF MARYLAND - COLLEGE PARK 5277
 SIMULATION OF RADIOACTIVE TRACERS TO EVALUATE TRANSPORT AND
 SCAVENGING IN THE GMI CORE MODEL
 06/29/1998 - 01/31/2000 FY99: \$57,457 Total: \$109,602
 Prin. Invest.: D CONSIDINE
 Tech. Officer: GSFC/R W STEWART
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7425 UNIVERSITY OF MARYLAND - COLLEGE PARK 5278
 FUSION OF AVHRR AND SEAWIFS DATA
 05/26/1998 - 04/30/2000 FY99: \$86,115 Total: \$168,774
 Prin. Invest.: S D PRINCE
 Tech. Officer: GSFC/C J TUCKER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7536 UNIVERSITY OF MARYLAND - COLLEGE PARK 5279
 BOREAL ECOSYSTEM-ATMOSPHERE INFORMATION SYSTEMS DESIGN
 AND OPERATION
 06/18/1998 - 12/31/1999 FY99: \$0 Total: \$89,926
 Prin. Invest.: K HUMMERICK
 Tech. Officer: GSFC/F HALL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7567 UNIVERSITY OF MARYLAND - COLLEGE PARK 5280
 INTERACTION OF LAND SURFACE COVER/CHARACTERISTICS AND SUR-
 FACE HYDROCLIMATOLOGY AT SEASONAL/INTERANNUAL
 07/09/1998 - 07/31/2001 FY99: \$0 Total: \$320,000
 Prin. Invest.: Y XUE
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7587 UNIVERSITY OF MARYLAND - COLLEGE PARK 5281
 TERRESTRIAL ENVIRONMENTAL VARIABLES DERIVED FROM EOS PLAT-
 FORM
 06/29/1998 - 01/31/2000 FY99: \$122,339 Total: \$196,808
 Prin. Invest.: S N GOWARD
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7628 UNIVERSITY OF MARYLAND - COLLEGE PARK 5282
 LEARNING CONTROLLERS FOR ENHANCED AUTONOMY OF SPACE ROBOTS
 08/24/1998 - 04/30/2000 FY99: \$0 Total: \$64,930
 Prin. Invest.: D SANNER
 Tech. Officer: HQ/D LAVERY
 CASE Category: 11 - ASTRONOMY

NAG 5 7634 UNIVERSITY OF MARYLAND - COLLEGE PARK 5283
 ISOTOPIC AND GEOCHEMICAL INVESTIGATIONS OF METEORITES
 09/10/1998 - 07/31/2001 FY99: \$122,500 Total: \$140,000
 Prin. Invest.: R J WALKER
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 7678 UNIVERSITY OF MARYLAND - COLLEGE PARK 5284
 MISSION OPERATIONS AND DATA ANALYSIS OF THE CELIAS EXPERIMENT ON SOHO PRIOR GRANT 2754
 09/17/1998 - 04/30/2000 FY99: \$0 Total: \$400,000
 Prin. Invest.: F I PAVICH
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7762 UNIVERSITY OF MARYLAND - COLLEGE PARK 5285
 WIND/SOHO GUEST OBSERVER PROGRAM FOR STUDY OF SOLAR ENERGETIC PARTICLES AND GALACTIC
 12/24/1998 - 09/30/1999 FY99: \$80,400 Total: \$80,400
 Prin. Invest.: F B MCDONALD Prin. Invest.: NONE
 Tech. Officer: GSFC/J LING
 CASE Category: 11 - ASTRONOMY

NAG 5 7805 UNIVERSITY OF MARYLAND - COLLEGE PARK 5286
 THE ASSIMILATION OF SATELLITE DATA INTO GLOBAL MHD SIMULATIONS (SECI PROGRAM)
 11/06/1998 - 11/14/1999 FY99: \$20,000 Total: \$20,000
 Prin. Invest.: R E LOPEZ
 Tech. Officer: GSFC/M H ACUNA
 CASE Category: 13 - PHYSICS

NAG 5 7832 UNIVERSITY OF MARYLAND - COLLEGE PARK 5287
 "PARTICIPATION IN THE "GLOBE" (GLOBAL LEARNING AND OBSERVATION TO BENEFIT THE ENVIRONMENT) PROJECT
 11/27/1998 - 11/30/1999 FY99: \$137,341 Total: \$137,341
 Prin. Invest.: J HASKETT
 Tech. Officer: GSFC/E R LEVINE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7842 UNIVERSITY OF MARYLAND - COLLEGE PARK 5288
 OBSERVING SYSTEM SIMULATION EXPERIMENTS AND ADDITIONAL ASSOCIATED WITH CAMEX3
 11/27/1998 - 11/30/2000 FY99: \$150,000 Total: \$150,000
 Prin. Invest.: D ZHANG
 Tech. Officer: GSFC/R F ADLER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7850 UNIVERSITY OF MARYLAND - COLLEGE PARK 5289
 CRITICAL MHD STUDIES OF SUN-EARTH CONNECTION
 11/30/1998 - 11/30/1999 FY99: \$90,000 Total: \$90,000
 Prin. Invest.: K PAPADOPOULOS
 Tech. Officer: GSFC/M H ACUNA
 CASE Category: 13 - PHYSICS

NAG 5 7879 UNIVERSITY OF MARYLAND - COLLEGE PARK 5290
 RELATIVISTIC ASTROPHYSICS IN BLACK HOLE AND LOW-MASS NEUTRON STAR X-RAY BINARIES - LTSA98
 12/02/1998 - 12/14/1999 FY99: \$34,748 Total: \$34,748
 Prin. Invest.: W CHEN Prin. Invest.: NONE
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7901 UNIVERSITY OF MARYLAND - COLLEGE PARK 5291
 EIT STUDIES OF LARGE SCALE STRUCTURES IN THE SOLAR CORONA
 12/02/1998 - 12/14/1999 FY99: \$67,884 Total: \$67,884
 Prin. Invest.: M R KUNDU
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7908 UNIVERSITY OF MARYLAND - COLLEGE PARK 5292
 MULTIWAVELENGTH PHOTOMETRIC IMAGING OF X-RAY AND EUV EMISSION FROM COMET P/TEMPLE-TUTTLE 1998 - A
 12/10/1998 - 12/14/1999 FY99: \$30,000 Total: \$30,000
 Prin. Invest.: C M LISSE, NONE
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7948 UNIVERSITY OF MARYLAND - COLLEGE PARK 5293
 GEOLOGICAL AND METEOROLOGICAL ASPECTS OF DETERMINATION OF GLOBAL SEA LEVEL RISE
 12/17/1998 - 12/31/1999 FY99: \$58,904 Total: \$58,904
 Prin. Invest.: B C DOUGLAS
 Tech. Officer: GSFC/E LINDSTROM
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7958 UNIVERSITY OF MARYLAND - COLLEGE PARK 5294
 DYNAMICS OF DUST IN THE JOVIAN SYSTEM
 01/27/1999 - 02/28/2000 FY99: \$49,019 Total: \$49,019
 Prin. Invest.: D P HAMILTON
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 8027 UNIVERSITY OF MARYLAND - COLLEGE PARK 5295
 SCIENCE EDUCATIONAL INSTRUCTIONAL MATERIALS FOR IS TP/SOLAR-MAX
 01/12/1999 - 01/14/2000 FY99: \$54,853 Total: \$54,853
 Prin. Invest.: R E LOPEZ
 Tech. Officer: GSFC/M H ACUNA
 CASE Category: 13 - PHYSICS

NAG 5 8029 UNIVERSITY OF MARYLAND - COLLEGE PARK 5296
 THIS GRANT WILL CONDUCT BASIC SCIENTIFIC RESEARCH IN THE PHYSICS OF SOLAR FLARES; INCREASING
 01/15/1999 - 12/31/1999 FY99: \$110,658 Total: \$110,658
 Prin. Invest.: E J SCHMAHL
 Tech. Officer: GSFC/C J CRANNELL
 CASE Category: 13 - PHYSICS

NAG 5 8033 UNIVERSITY OF MARYLAND - COLLEGE PARK 5297
 SUPPORT OF DATA ACCESS FOR THE IMP-8 UMD EXPERIMENT
 01/19/1999 - 01/31/2000 FY99: \$5,307 Total: \$5,307
 Prin. Invest.: F I PAVICH
 Tech. Officer: GSFC/J KING
 CASE Category: 11 - ASTRONOMY

NAG 5 8079 UNIVERSITY OF MARYLAND - COLLEGE PARK 5298
 A PROPOSAL TO ASSIST IN THE INTERPRETATION OF DATA FROM THE
 COSMIC RAY ISOTOPE SPECTROMETER EXPERI
 01/14/1999 - 12/31/1999 FY99: \$45,000 Total: \$45,000
Prin. Invest.: D LUKASIAK
Tech. Officer: GSFC/D C LING
CASE Category: 11 - ASTRONOMY

NAG 5 8105 UNIVERSITY OF MARYLAND - COLLEGE PARK 5299
 GEOMORPHOLOGICAL ANALYSIS OF TERRAINS ON EARTH AND MAR-
 SPOP: 2/1/99-1/31/00
 02/19/1999 - 01/31/2000 FY99: \$55,001 Total: \$55,001
Prin. Invest.: R DUBAYAH
Tech. Officer: GSFC/J B GARVIN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 8121 UNIVERSITY OF MARYLAND - COLLEGE PARK 5300
 GENERATION OF A CONSISTENT TERRESTRIAL NET PRIMARY PRODUC-
 TION DATA SET: PART II
 01/26/1999 - 12/31/1999 FY99: \$64,000 Total: \$64,000
Prin. Invest.: S D PRINCE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8177 UNIVERSITY OF MARYLAND - COLLEGE PARK 5301
 DISTRIBUTION OF IJRS SPECIAL ISSUE ON GLOBAL AND REGIONAL LAND
 COVER CHARACTERIZATION FROM REMOTE
 02/09/1999 - 05/31/2000 FY99: \$15,037 Total: \$15,037
Prin. Invest.: R DEFRIES
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8179 UNIVERSITY OF MARYLAND - COLLEGE PARK 5302
 INTERNATIONAL FORUM ON BRDF
 02/12/1999 - 02/29/2000 FY99: \$14,993 Total: \$14,993
Prin. Invest.: S LIANG
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8189 UNIVERSITY OF MARYLAND - COLLEGE PARK 5303
 OCCULTATION SYSTEM UPGRADE
 03/08/1999 - 03/14/2000 FY99: \$128,231 Total: \$128,231
Prin. Invest.: M F A'HEARN
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 8192 UNIVERSITY OF MARYLAND - COLLEGE PARK 5304
 RESEARCH IN SOLAR RADIO ASTRONOMY AT SHORT WAVELENGTHS
 05/13/1999 - 05/31/2000 FY99: \$19,038 Total: \$19,038
Prin. Invest.: M R KUNDU
Tech. Officer: GSFC/W J WAGNER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8207 UNIVERSITY OF MARYLAND - COLLEGE PARK 5305
 DISCOVERY MISSION SELECTION - DEEP IMPACT, AO98-OS S-04
 02/24/1999 - 02/29/2000 FY99: \$70,000 Total: \$70,000
Prin. Invest.: D A'HEARN
Tech. Officer: GSFC/M NOLAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8225 UNIVERSITY OF MARYLAND - COLLEGE PARK 5306
 USE OF TWO-DIMENSIONAL MODELS IN SUPPORT OF THE ATMOSPHERIC
 EFFECTS OF STRATOSPHERIC AIRCRAFT PROJ
 02/10/1999 - 02/14/2000 FY99: \$18,762 Total: \$18,762
Prin. Invest.: D B CONSIDINE
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8230 UNIVERSITY OF MARYLAND - COLLEGE PARK 5307
 COMPARISON OF THE RADIATIVE AND PHYSIOLOGICAL EFFECTS OF
 DOUBLED CO2 ON THE GLOBAL CLIMATE AND DEVELOPMENT
 03/01/1999 - 03/31/2000 FY99: \$109,577 Total: \$109,577
Prin. Invest.: L BOUNOUA
Tech. Officer: GSFC/J G COLLATZ
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8263 UNIVERSITY OF MARYLAND - COLLEGE PARK 5308
 SALINITY EFFECTS ON INTRA-SEASONAL TO INTERANNUAL VARIABILITY
 OF COUPLED CLIMATE PREDICTION MODEL
 02/22/1999 - 12/31/1999 FY99: \$137,046 Total: \$137,046
Prin. Invest.: R MURTUGUDDE
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8289 UNIVERSITY OF MARYLAND - COLLEGE PARK 5309
 DYNAMICAL DIAGNOSIS OF THE NSIPP ATMOSPHERIC AND COUPLED
 MODEL SIMULATIONS
 02/24/1999 - 02/29/2000 FY99: \$98,435 Total: \$98,435
Prin. Invest.: S NIGAM
Tech. Officer: GSFC/M RIENECKER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8366 UNIVERSITY OF MARYLAND - COLLEGE PARK 5310
 SURFACE RADIATION BUDGETS FOR LBA
 03/08/1999 - 02/29/2000 FY99: \$93,000 Total: \$93,000
Prin. Invest.: R T PINKER
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8375 UNIVERSITY OF MARYLAND - COLLEGE PARK 5311
 DEMONSTRATE THE IMPORTANCE OF THE RAPID PROTOTYPING OF MIC-
 CROMECHANICAL SYSTEMS USING ION BEAM MILL
 03/03/1999 - 03/15/2000 FY99: \$29,498 Total: \$29,498
Prin. Invest.: J ORLOFF
Tech. Officer: GSFC/H MOSELEY
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 8378 UNIVERSITY OF MARYLAND - COLLEGE PARK 5312
 ACTIVE COOLING SYSTEMS FOR MICRO-AND NANO-SPACECRAFT
 04/01/1999 - 09/30/1999 FY99: \$24,864 Total: \$24,864
Prin. Invest.: R RANDERMACHER
Tech. Officer: GSFC/J DIDION
CASE Category: 46 - MECHANICAL ENGR

NAG 5 8386 UNIVERSITY OF MARYLAND - COLLEGE PARK 5313
 INFLUENCE OF LAND SURFACE PROCESSES/LAND COVER CHANGES IN
 AMAZON REGIONAL HYDROMETEOROLOGY
 03/03/1999 - 03/14/2000 FY99: \$94,528 Total: \$94,528
Prin. Invest.: Y XUE
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8398 UNIVERSITY OF MARYLAND - COLLEGE PARK 5314
 CONDUCT RESEARCH IN RAREFIED GAS DYNAMICS TO SUPPORT THE
 DEVELOPMENT OF NASA'S GLOBAL ELECTRODYNAMICS
 05/10/1999 - 05/14/2000 FY99: \$75,000 Total: \$75,000
Prin. Invest.: D J LEWIS, NONE
Tech. Officer: GSFC/J FIORA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8411 UNIVERSITY OF MARYLAND - COLLEGE PARK 5315
 ISTP GGS SOLARMAX
 03/16/1999 - 02/29/2000 FY99: \$390,000 Total: \$390,000
Prin. Invest.: K PAPADOPOULOS
Tech. Officer: GSFC/S CURTIS
CASE Category: 11 - ASTRONOMY

NAG 5 8459 UNIVERSITY OF MARYLAND - COLLEGE PARK 5316
 EQ-S MISSIONS OPERATIONS AND DATA ANALYSIS
 04/19/1999 - 04/14/2000 FY99: \$46,080 Total: \$46,080
Prin. Invest.: J DRAKE
Tech. Officer: GSFC/M HESSE
CASE Category: 13 - PHYSICS

NAG 5 8528 UNIVERSITY OF MARYLAND - COLLEGE PARK 5317
 ENSEMBLE OCEAN-ATMOSPHERE PERTURBATIONS WITH GROWING
 ENSO USING BREEDING
 05/26/1999 - 05/31/2000 FY99: \$194,706 Total: \$194,706
Prin. Invest.: E KALNAY
Tech. Officer: GSFC/M RIENECKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8575 UNIVERSITY OF MARYLAND - COLLEGE PARK 5318
 DEVELOPMENT OF PROCEDURES FOR SELECTING LANDSAT SCENES FOR
 EARTH SYSTEM SCIENCE
 06/07/1999 - 06/14/2000 FY99: \$69,968 Total: \$69,968
Prin. Invest.: S KALLURI
Tech. Officer: GSFC/C J TUCKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8583 UNIVERSITY OF MARYLAND - COLLEGE PARK 5319
 PLUME IMPINGEMENT MODELING FOR SPACECRAFT DESIGN
 06/08/1999 - 06/14/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: M J LEWIS
Tech. Officer: GSFC/M RHEE
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 8595 UNIVERSITY OF MARYLAND - COLLEGE PARK 5320
 PHYSICAL & BIOGEOCHEMICAL PROCESSES WITH THE INDIA OCEAN: A
 STUDY OF ANNUAL & INTERANNUAL VARIABILITY
 06/07/1999 - 05/31/2000 FY99: \$137,679 Total: \$137,679
Prin. Invest.: R MURTUGUDDE
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8596 UNIVERSITY OF MARYLAND - COLLEGE PARK 5321
 YEAR 1 FUNDING FROM HPCC/ESS PROJECT FOR PROPOSAL TITLE: AN
 ADAPTIVE MHD CODE BASED ON CHARACTERIZATION
 06/11/1999 - 06/14/2000 FY99: \$40,634 Total: \$40,634
Prin. Invest.: A DEANE
Tech. Officer: GSFC/J R FISCHER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8613 UNIVERSITY OF MARYLAND - COLLEGE PARK 5322
 CLIMATE CHANGE, EXTREME COASTAL WATER LEVEL EVENTS AND
 COASTAL EROSION
 06/11/1999 - 06/30/2000 FY99: \$72,761 Total: \$72,761
Prin. Invest.: B DOUGLAS
Tech. Officer: GSFC/E PAYLOR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8621 UNIVERSITY OF MARYLAND - COLLEGE PARK 5323
 ANALYSIS OF DATA FROM THE SWE EXPERIMENT ON THE WIND SPACE-
 CRAFT
 06/16/1999 - 05/31/2000 FY99: \$31,144 Total: \$31,144
Prin. Invest.: M COPLAN
Tech. Officer: GSFC/K OGILVIE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8678 UNIVERSITY OF MARYLAND - COLLEGE PARK 5324
 ROLE OF GRAY SQUIRRELS IN MAINTAINING LIFE CYCLE
 07/09/1999 - 08/31/2001 FY99: \$18,885 Total: \$18,885
Prin. Invest.: L W ADAMS
Tech. Officer: GSFC/D E WALTER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 8692 UNIVERSITY OF MARYLAND - COLLEGE PARK 5325
 MAPPING THE RISING PHASE OF X-RAY OUTBURSTS IN SOFT X-RAY
 TRANSIENTS
 07/21/1999 - 07/31/2000 FY99: \$1,750 Total: \$1,750
Prin. Invest.: W CHEN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 8711 UNIVERSITY OF MARYLAND - COLLEGE PARK 5326
 DEVELOPMENT OF A HIGH SPEED, HIGH FUNCTIONALITY, RELIABLE FIBER
 OPTICS SWITCH MODULE BASED ON RESONANCE
 07/21/1999 - 09/30/2000 FY99: \$45,000 Total: \$45,000
Prin. Invest.: D DAGENAIS, NONE
Tech. Officer: GSFC/H C SHAW
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 8764 UNIVERSITY OF MARYLAND - COLLEGE PARK 5327
 MODELS & ALGORITHMS FOR FOREST DYNAMIC STUDIES IN SIBERIA &
 NORTHEASTERN CHINA USING MULTI-SATELLITE
 09/10/1999 - 11/30/2000 FY99: \$99,323 Total: \$99,323
Prin. Invest.: G SUN
Tech. Officer: GSFC/K RANSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8789 UNIVERSITY OF MARYLAND - COLLEGE PARK 5328
 CENTRAL AFRICA REGIONAL PROGRAM FOR THE ENVIRONMENT
 09/03/1999 - 08/31/2000 FY99: \$76,729 Total: \$76,729
Prin. Invest.: N T LAPORTE-GOETZ
Tech. Officer: GSFC/C J TUCKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8809 UNIVERSITY OF MARYLAND - COLLEGE PARK 5329
 COMBINING HYDROLOGICAL MODELING AND REMOTE SENSING FOR
 APPLIED MACROSCALE WATER AND ENERGY BALANCE
 09/08/1999 - 09/30/2000 FY99: \$66,163 Total: \$66,163
Prin. Invest.: R DUBAYAH
Tech. Officer: GSFC/E WOOD
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8842 UNIVERSITY OF MARYLAND - COLLEGE PARK 5330
 AWARD FUNDING TO THE UNIVERSITY OF MARYLAND FOR PROPOSAL
 ENTITLED "OCTOBER ASTROPHYSICS CONFERENCE"
 09/24/1999 - 09/30/2000 FY99: \$25,000 Total: \$25,000
 Prin. Invest.: J D TRASCO
 Tech. Officer: GSFC/D NORTON
 CASE Category: 11 - ASTRONOMY

NAG 8 1027 UNIVERSITY OF MARYLAND - COLLEGE PARK 5331
 RADIO JET STUDY
 01/27/1994 - 02/19/1999 FY99: \$0 Total: \$415,000
 Prin. Invest.: A S WILSON
 Tech. Officer: MSFC/ME ROSENTHAL
 CASE Category: 11 - ASTRONOMY

NAG 8 1440 UNIVERSITY OF MARYLAND - COLLEGE PARK 5332
 SEARCH FOR SPIN-MASS INTERACTION WITH A SUPER- CONDUCTING
 DIFFERENTIAL ANGULAR ACCELEROMETER
 02/02/1998 - 12/31/2002 FY99: \$100,000 Total: \$191,000
 Prin. Invest.: H J PAIK, M V MOODY
 Tech. Officer: MSFC/J W POE
 CASE Category: 13 - PHYSICS

NAG 9 1116 UNIVERSITY OF MARYLAND - COLLEGE PARK 5333
 RESEARCH IN SPACE AND Telerobotics
 06/04/1999 - 06/04/2000 FY99: \$500,000 Total: \$500,000
 Prin. Invest.: D AKIN
 Tech. Officer: JSC/C J CULBERT, JSC/C R PRICE
 CASE Category: 49 - ENGINEERING, OTHER

NAGW 1967 UNIVERSITY OF MARYLAND - COLLEGE PARK 5334
 NAGW-1967/UNIV OF MD/PRIMARY PRODUCTION MODELLING IN THE
 SAHEL USING NOAA AVHRR DATA
 02/16/1990 - 09/30/1997 FY99: \$0 Total: \$847,000
 Prin. Invest.: S D PRINCE
 Tech. Officer: HQ/G ASRAR, HQ/T J PIEPER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 2062 UNIVERSITY OF MARYLAND - COLLEGE PARK 5335
 NAGW-2062/UNIV OF MARYLAND @ COLLEGE PARK/RESEARCH IN
 CHARGED PARTICLE TRANSPORT THEORY
 05/05/1990 - 03/31/1998 FY99: -\$1 Total: \$179,999
 Prin. Invest.: J A EARL
 Tech. Officer: HQ/W V JONES, HQ/J C LING
 CASE Category: 13 - PHYSICS

NAGW 2504 UNIVERSITY OF MARYLAND - COLLEGE PARK 5336
 STUDY OF ENERGETIC PARTICLE PROCESSES IN THE HELIO SPHERE
 07/15/1991 - 09/30/1998 FY99: \$0 Total: \$590,000
 Prin. Invest.: F B MCDONALD
 Tech. Officer: HQ/W V JONES, HQ/J C LING
 CASE Category: 13 - PHYSICS

NAGW 3235 UNIVERSITY OF MARYLAND - COLLEGE PARK 5337
 NAGW-3235/UNIV MARYLAND @ COLLEGE PARK/DETECTING THE LOCA-
 TION, SPATIAL EXTENT, RATES AND IMPACTS
 10/26/1992 - 04/30/1998 FY99: -\$2,238 Total: \$2,214,831
 Prin. Invest.: J TOWNSHEND
 Tech. Officer: HQ/M E MAIDEN, HQ/D M BUTLER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3758 UNIVERSITY OF MARYLAND - COLLEGE PARK 5338
 MONITORING AND MODELING THE DYNAMICS OF COASTAL MARCHES:
 REGIONAL APPROACH USING LANDSAT DATA
 09/29/1993 - 12/31/1997 FY99: -\$8,971 Total: \$772,859
 Prin. Invest.: M KEARNEY
 Tech. Officer: HQ/D M BUTLER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4285 UNIVERSITY OF MARYLAND - COLLEGE PARK 5339
 A STUDY OF THE SURFACE PROPERTIES AND ICE DYNAMICS OF THE
 GREENLAND ICE SHEET
 01/31/1995 - 08/31/1998 FY99: \$0 Total: \$262,676
 Prin. Invest.: M FAHNESTOCK
 Tech. Officer: HQ/R H THOMAS, HQ/M BALTUCK
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4554 UNIVERSITY OF MARYLAND - COLLEGE PARK 5340
 TOPOGRAPHIC EFFECTS ON SOLAR RADIATION AND REMOTE SENSED
 RADIANCES
 06/09/1995 - 06/30/1998 FY99: -\$515 Total: \$125,852
 Prin. Invest.: R DUBAYAH, S LLANG
 Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4670 UNIVERSITY OF MARYLAND - COLLEGE PARK 5341
 PARALLAXES AND PROPER MOTIONS OF BRIGHTEST MEMBERS OF
 ASTROPHYSICALLY PUZZLING CLASSES OF STARS
 09/15/1995 - 08/31/1998 FY99: -\$95 Total: \$34,030
 Prin. Invest.: V TRIMBLE
 Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
 CASE Category: 11 - ASTRONOMY

NAGW 4740 UNIVERSITY OF MARYLAND - COLLEGE PARK 5342
 EVALUATION OF SURFACE RADIATION BUDGET ALGORITHMS WITH PATH-
 FINDER DATA
 09/07/1995 - 06/30/1998 FY99: -\$1 Total: \$169,270
 Prin. Invest.: R T PINKER
 Tech. Officer: HQ/M E MAIDEN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4790 UNIVERSITY OF MARYLAND - COLLEGE PARK 5343
 A VERSION TWO AVHRR MULTIREOLUTION LAND PATHFINDER DATA SET
 09/22/1995 - 12/31/1997 FY99: -\$19,755 Total: \$669,008
 Prin. Invest.: J TOWNSHEND, E VORMOTE
 Tech. Officer: HQ/M E MAIDEN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4852 UNIVERSITY OF MARYLAND - COLLEGE PARK 5344
 LANDSAT PATHFINDER SCIENCE
 10/24/1995 - 12/31/1997 FY99: \$0 Total: \$165,500
 Prin. Invest.: N AVAILABLE
 Tech. Officer: HQ/N AVAILABLE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5088 UNIVERSITY OF MARYLAND - COLLEGE PARK 5345
 THEORETICAL MODELS OF COMETARY OBSERVATIONS
 06/24/1996 - 05/31/1998 FY99: -\$2,631 Total: \$46,085
 Prin. Invest.: M F A'HEARN
 Tech. Officer: HQ/E BARKER, HQ/H C BRINTON
 CASE Category: 11 - ASTRONOMY

NAGW 5114 UNIVERSITY OF MARYLAND - COLLEGE PARK 5346
 LEARNING CONTROLLERS FOR ENHANCED AUTONOMY OF SPAC E
 ROBOTS
 06/28/1996 - 04/30/1998 FY99: -\$1,188 Total: \$63,800
Prin. Invest.: D M SANNER
Tech. Officer: HQ/R NETTING
CASE Category: 46 - MECHANICAL ENGR

NAGW 5175 UNIVERSITY OF MARYLAND - COLLEGE PARK 5347
 MAGNETIC RECONNECTION AND ASSOCIATED WAVE AND PART ICLE SIG-
 NATURES IN COLLISIONLESS PLASMA
 10/03/1996 - 12/31/1997 FY99: -\$4,456 Total: \$65,544
Prin. Invest.: J F DRAKE
Tech. Officer: HQ/J D BOHLIN, HQ/G L WITHBROE
CASE Category: 13 - PHYSICS

NAGW 5178 UNIVERSITY OF MARYLAND - COLLEGE PARK 5348
 COMPILATION OF GLOBAL TERRESTRIAL PRIMARY PRODUCTI ON DATA:
 PART II
 10/29/1996 - 06/30/1998 FY99: \$0 Total: \$143,986
Prin. Invest.: S D PRINCE, R J OLSON
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5191 UNIVERSITY OF MARYLAND - COLLEGE PARK 5349
 DETAILED QUANTITATIVE COMPARISON BETWEEN GLOBAL MH D SIMULA-
 TION RESULTS & MULTIPOINT SPACECRAFT OBSE
 09/20/1996 - 02/28/1998 FY99: -\$2,899 Total: \$27,101
Prin. Invest.: R E LOPEZ, NONE
Tech. Officer: HQ/J D BOHLIN, HQ/G L WITHBROE
CASE Category: 13 - PHYSICS

NAGW 5194 UNIVERSITY OF MARYLAND - COLLEGE PARK 5350
 COMBINING REMOTE SENSING & HYDROLOGICAL MODELING F OR
 APPLIED WATER & ENERGYBALANCE STUDIES
 09/20/1996 - 12/31/1998 FY99: -\$18 Total: \$226,982
Prin. Invest.: D DUBAYAH
Tech. Officer: HQ/M WEI, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5244 UNIVERSITY OF MARYLAND - COLLEGE PARK 5351
 NEW METHODS FOR MEASURING ICE MOTION
 10/29/1996 - 12/31/1998 FY99: \$0 Total: \$89,159
Prin. Invest.: M A FAHNESTOCK
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 33 - OCEANOGRAPHY

NAG13 98001 UNIVERSITY OF MARYLAND - COLLEGE PARK 5352
 ENHANCING EARTH SYSTEM SCIENCES USING COMMERCIAL TERRES-
 TRIAL REMOTE SENSING SYSTEMS
 11/03/1997 - 11/29/1999 FY99: \$183,535 Total: \$384,755
Prin. Invest.: S GOWARD
Tech. Officer: SSC/J JENNER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG13 99011 UNIVERSITY OF MARYLAND - COLLEGE PARK 5353
 MID ATLANTIC RESAC CONSORTIUM SAME
 03/01/1999 - 03/01/2002 FY99: \$1,730,000 Total: \$1,730,000
Prin. Invest.: S D PRINCE
Tech. Officer: SSC/C HILL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 5 31365 UNIVERSITY OF MARYLAND - COLLEGE PARK 5354
 EOS EXECUTION PHASE
 01/02/1992 - 12/14/2001 FY99: \$474,000 Total: \$3,248,390
Prin. Invest.: C JUSTICE
Tech. Officer: GSFC/H OSEROFF
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 31732 UNIVERSITY OF MARYLAND - COLLEGE PARK 5355
 R & D STUDIES IN BIOSHPERE-ATOMOSPHERE INTERACTIONS
 11/22/1991 - 12/31/1999 FY99: \$0 Total: \$753,400
Prin. Invest.: C JUSTICE
Tech. Officer: GSFC/P SELLERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 96060 UNIVERSITY OF MARYLAND - COLLEGE PARK 5356
 DEFINITION PHASE ACTIVITIES ASSOCIATED WITH THE MODIS
 INSTRUMENT OF THE EOS
 07/25/1996 - 12/14/2001 FY99: \$393,000 Total: \$1,056,000
Prin. Invest.: J TOWNSHEND
Tech. Officer: GSFC/D TOLL
CASE Category: 11 - ASTRONOMY

NAS 5 96062 UNIVERSITY OF MARYLAND - COLLEGE PARK 5357
 DEFINITION PHASE ACTIVITIES ASSOCIATED WITH MODIS INSTRUMENT OF
 THE EOS
 07/02/1996 - 12/14/2001 FY99: \$509,000 Total: \$1,228,562
Prin. Invest.: E VERMONTE
Tech. Officer: GSFC/D TOLL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 97160 UNIVERSITY OF MARYLAND - COLLEGE PARK 5358
 VEGETATION CANOPY LIDAR MISSION FOR ESSP
 05/15/1997 - 05/31/2002 FY99: \$12,124,955 Total: \$22,381,543
Prin. Invest.: R DUBAYAH
Tech. Officer: GSFC/J ROBINSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 99211 UNIVERSITY OF MARYLAND - COLLEGE PARK 5359
 AWARD - SAMPEX MISSION SUPPORT
 08/27/1999 - 08/26/2000 FY99: \$90,000 Total: \$90,000
Prin. Invest.: W FOURNEY
Tech. Officer: GSFC/T STENGLE
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 829 UNIVERSITY OF MARYLAND - COLLEGE PARK 5360
 EVALUATION OF METHODOLGY FOR TESTING & ANALYSIS OF ADVANCED
 ROTORS
 09/30/1993 - 12/31/1998 FY99: \$0 Total: \$358,273
Prin. Invest.: I CHOPRA, F HARRIS
Tech. Officer: ARC/W G WARBRODT, ARC/F FELKER
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 944 UNIVERSITY OF MARYLAND - COLLEGE PARK 5361
 CENTER FOR ROTORCRAFT EDUCATION & RESEARCH
 02/23/1996 - 12/31/1999 FY99: \$797,800 Total: \$3,073,758
Prin. Invest.: I CHOPRA
Tech. Officer: ARC/Y H YU, ARC/J M DAVIS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 1058 UNIVERSITY OF MARYLAND - COLLEGE PARK 5362
 DUST DESTRUCTION & EMISSION IN SUPERNOVA REMNANTS
 07/23/1998 - 07/14/1999 FY99: \$0 Total: \$13,756
Prin. Invest.: L G MUNDY
Tech. Officer: ARC/D J HOLLENHACH
CASE Category: 11 - ASTRONOMY

NCC 2 1129 UNIVERSITY OF MARYLAND - COLLEGE PARK 5363
 WAVERIDER-BASED REENTRY CONFIGURATIONS FOR THE SHARP FLIGHT EXPERIMENT
 07/13/1999 - 10/15/1999 FY99: \$12,000 Total: \$12,000
Prin. Invest.: M J LEWIS
Tech. Officer: ARC/P KOLODZIEJ, ARC/D J RASKY
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5237 UNIVERSITY OF MARYLAND - COLLEGE PARK 5364
 INFRARED EMISSION AND THERMAL PROCESSES IN SPIRAL GALAXIES
 08/26/1997 - 08/31/1999 FY99: \$0 Total: \$130,004
Prin. Invest.: L G MUNDY, M WHOTIVE
Tech. Officer: ARC/D J HOLLENHACH
CASE Category: 11 - ASTRONOMY

NCC 2 5348 UNIVERSITY OF MARYLAND - COLLEGE PARK 5365
 THE EVOLUTION OF DUST IN THE MULTIPHASE INTERSTELLAR MEDIUM
 09/01/1999 - 09/14/2000 FY99: \$18,299 Total: \$18,299
Prin. Invest.: M G WOLFIRE
Tech. Officer: ARC/D J HOLLENHACH, ARC/R E YOUNG
CASE Category: 11 - ASTRONOMY

NCC 3 528 UNIVERSITY OF MARYLAND - COLLEGE PARK 5366
 CENTER FOR SATELLITE AND HYBRID COMMUNICATION NETWORKS
 01/30/1997 - 01/11/2000 FY99: \$765,500 Total: \$2,303,000
Prin. Invest.: J S BARAS
Tech. Officer: GRC/J W BAGWELL, GRC/K B BHASIN
CASE Category: 45 - ELECTRICAL ENGR

NCC 3 686 UNIVERSITY OF MARYLAND - COLLEGE PARK 5367
 STUDIES ON THE BEHAVIOR OF HIGHLY PRE-HEATED AIR F LAMES IN MICROGRAVITY
 03/11/1999 - 01/11/2002 FY99: \$78,500 Total: \$78,500
Prin. Invest.: A K GUPTA
Tech. Officer: GRC/D STOCKER
CASE Category: 49 - ENGINEERING, OTHER

NCC 5 55 UNIVERSITY OF MARYLAND - COLLEGE PARK 5368
 JOINT CENTER FOR EARTH SYSTEM SCIENCE
 09/22/1993 - 09/30/1999 FY99: \$507,674 Total: \$5,402,993
Prin. Invest.: R D HUDSON
Tech. Officer: GSFC/F EINAUDI, GSFC/C E COTE
CASE Category: 11 - ASTRONOMY

NCC 5 60 UNIVERSITY OF MARYLAND - COLLEGE PARK 5369
 COOPERATIVE RESEARCH IN SPACE GEODESY AND CRUSTAL DYNAMICS
 12/06/1993 - 04/30/1998 FY99: \$0 Total: \$992,975
Prin. Invest.: J TRASCO, J D TRASCO
Tech. Officer: GSFC/P MC CLAIN
CASE Category: 11 - ASTRONOMY

NCC 5 81 UNIVERSITY OF MARYLAND - COLLEGE PARK 5370
 SCANNING RAMAN LIDAR TO MEASURE WATER VAPOR AND AE ROSOLS FOR THE STUDY OF ATMOSPHERIC RADIATIVE....
 11/18/1994 - 02/28/1998 FY99: -\$10,114 Total: \$59,886
Prin. Invest.: R ELLINGSON, S H MELFI, R A FERRARE
Tech. Officer: GSFC/G K SCHWEMMER, GSFC/R F ADLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 85 UNIVERSITY OF MARYLAND - COLLEGE PARK 5371
 ESTABLISHMENT OF FLIGHT DYNAMICS AND CONTROL LABORATORY
 03/22/1995 - 05/31/1998 FY99: -\$192 Total: \$434,061
Prin. Invest.: D K SCHMIDT
Tech. Officer: GSFC/P L CROUSE, GSFC/T H STENGLE
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 5 128 UNIVERSITY OF MARYLAND - COLLEGE PARK 5372
 A STUDY OF THE DEVELOPMENT OF REMOTE SENSING ALGORITHMS WITH EMPHASIS ON USING THE MODIS INSTR.
 01/18/1996 - 12/31/1999 FY99: \$242,172 Total: \$960,724
Prin. Invest.: A J FLAG
Tech. Officer: GSFC/S SAMADI, GSFC/E MASUOKA
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 133 UNIVERSITY OF MARYLAND - COLLEGE PARK 5373
 SATELLITE REMOTE SENSING METHODS FOR TERRESTRIAL BIOLOGICAL MONITORING AND MODELING
 02/22/1996 - 09/30/1999 FY99: \$0 Total: \$610,310
Prin. Invest.: S GOWARD, R DUBAYAH, J G TOWNSEND
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 11 - ASTRONOMY

NCC 5 150 UNIVERSITY OF MARYLAND - COLLEGE PARK 5374
 GRAND CHALLENGE APPLICATIONS
 09/04/1996 - 12/31/1999 FY99: -\$280,000 Total: \$962,000
Prin. Invest.: P L YSTER
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 5 170 UNIVERSITY OF MARYLAND - COLLEGE PARK 5375
 EVALUATION OF SOFTWARE ENGINEERING METHODOLOGIES
 11/20/1996 - 10/31/1999 FY99: \$345,000 Total: \$1,264,800
Prin. Invest.: V R BASILI, M V ZELKOWITZ
Tech. Officer: GSFC/D E JAMISON
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 180 UNIVERSITY OF MARYLAND - COLLEGE PARK 5376
 THIS GRANT PROVIDES POST-DOC SUPPORT, FELLOWSHIPS, LABORATORY FOR HIGH ENERGY ASTROPHYSICS
 02/06/1997 - 01/31/2000 FY99: \$2,131,489 Total: \$4,497,220
Prin. Invest.: J D TRASCO
Tech. Officer: GSFC/A HARDING
CASE Category: 11 - ASTRONOMY

NCC 5 190 UNIVERSITY OF MARYLAND - COLLEGE PARK 5377
 SUPPORT OF THE EARTH SYSTEM SCIENCE INTERDISCIPLINE
 04/04/1997 - 03/31/2000 FY99: \$0 Total: \$600,000
Prin. Invest.: D TOWNSEND
Tech. Officer: GSFC/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 216 UNIVERSITY OF MARYLAND - COLLEGE PARK 5378
 SUMMER INSTIT. ON ATMOSPHERIC AND HYDROSPHERIC SCI
 07/15/1997 - 04/30/1999 FY99: \$0 Total: \$93,382
Prin. Invest.: F BAER
Tech. Officer: GSFC/R HARTLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 227 UNIVERSITY OF MARYLAND - COLLEGE PARK 5379
 COMMERCIAL SATELLITE SYSTEMS FOR HIGH DATA RATE CO PLICATIONS
 TO THE INTERNATIONAL SPACE STATION AND
 08/19/1997 - 12/31/1997 FY99: \$16,807 Total: \$314,659
Prin. Invest.: D S BARAS
Tech. Officer: GSFC/V CEVENINI
CASE Category: 59 - LIFESCENCE, OTHER

NCC 5 238 UNIVERSITY OF MARYLAND - COLLEGE PARK 5380
 COOPERATIVE RESEARCH AGREEMENT FOR SPACE LASER RES MD, A.
 JAMES CLARK SCHOOL OF ENGINEERING & NASA/G
 09/18/1997 - 08/31/2000 FY99: \$395,255 Total: \$2,000,055
Prin. Invest.: D CHRISTOU
Tech. Officer: GSFC/R AFZAL
CASE Category: 49 - ENGINEERING, OTHER

NCC 5 243 UNIVERSITY OF MARYLAND - COLLEGE PARK 5381
 RANGER TELEROBOTIC FLIGHT EXPERIMENT
 11/03/1997 - 09/30/1999 FY99: \$0 Total: \$4,511,377
Prin. Invest.: D AKIN
Tech. Officer: GSFC/D LAVERY
CASE Category: 11 - ASTRONOMY

NCC 5 255 UNIVERSITY OF MARYLAND - COLLEGE PARK 5382
 COOPERATIVE RESEARCH IN THE SPACE SCIENCES
 12/30/1997 - 12/31/1998 FY99: \$202,224 Total: \$430,366
Prin. Invest.: J TRASCO
Tech. Officer: GSFC/T KOSTIUK
CASE Category: 11 - ASTRONOMY

NCC 5 274 UNIVERSITY OF MARYLAND - COLLEGE PARK 5383
 SUMMER INSTITUTE ON ATMOSPHERIC AND HYDROSPHERIC SCIENCES
 04/30/1998 - 04/30/2000 FY99: \$104,312 Total: \$201,835
Prin. Invest.: F BAER, NONE
Tech. Officer: GSFC/R HARTLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 300 UNIVERSITY OF MARYLAND - COLLEGE PARK 5384
 A LANDCOVER EARTH SCIENCE INFORMATION PARTNERSHIP
 04/21/1998 - 02/28/2001 FY99: \$1,340,500 Total: \$2,440,500
Prin. Invest.: J TOWNSENDE, NONE
Tech. Officer: GSFC/M MAIDEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 324 UNIVERSITY OF MARYLAND - COLLEGE PARK 5385
 SCANNING RAMAN LIDAR TO MEASURE WATER VAPOR AND AE ROSOLS
 FOR THE STUDY OF ATMOSPHERIC RADIATION ME
 03/25/1998 - 02/28/1999 FY99: \$0 Total: \$24,000
Prin. Invest.: R G ELLINGSON
Tech. Officer: GSFC/G SCHWEMMER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 353 UNIVERSITY OF MARYLAND - COLLEGE PARK 5386
 FUNDS ARE PROVIDED FOR THE GRANT PROPOSAL BY THE UNIVERSITY
 RESEARCH FOUNDATION FOR ENVIRONET TO
 08/04/1998 - 06/30/2000 FY99: \$213,285 Total: \$253,970
Prin. Invest.: C F MARTIN
Tech. Officer: GSFC/H PARK
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 372 UNIVERSITY OF MARYLAND - COLLEGE PARK 5387
 COOPERATIVE RESEARCH IN SPACE SCIENCE WITH THE UNIVERSITY OF
 MARYLAND
 12/22/1998 - 12/31/1999 FY99: \$414,179 Total: \$414,179
Prin. Invest.: J D TRASCO
Tech. Officer: GSFC/T KOSTIUK
CASE Category: 11 - ASTRONOMY

NCC 5 374 UNIVERSITY OF MARYLAND - COLLEGE PARK 5388
 EARTH SCIENCE INTER-DISCIPLINARY CENTER
 01/20/1999 - 01/14/2000 FY99: \$823,924 Total: \$823,924
Prin. Invest.: R D HUDSON
Tech. Officer: GSFC/R HARTLE, GSFC/C COTE
CASE Category: 11 - ASTRONOMY

NCC 5 386 UNIVERSITY OF MARYLAND - COLLEGE PARK 5389
 SCANNING RAMAN LIDAR TO MEASURE WATER VAPOR AND AE ROSOLS
 FOR THE STUDY OF ATMOSPHERIC RADIATION ME
 04/01/1999 - 03/31/2000 FY99: \$24,000 Total: \$24,000
Prin. Invest.: R ELINGTON
Tech. Officer: GSFC/D WHITEMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 408 UNIVERSITY OF MARYLAND - COLLEGE PARK 5390
 PROTOTYPE IMPLEMENTATION OF A RESEARCH ENVIRONMENT FOR
 ADVANCED LANDSAT MONITORING (REALM)
 05/17/1999 - 11/30/1999 FY99: \$208,963 Total: \$208,963
Prin. Invest.: S GOWARD
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 417 UNIVERSITY OF MARYLAND - COLLEGE PARK 5391
 RANGER TELEROBOTICS FLIGHT EXPERIMENT
 08/25/1999 - 08/30/2000 FY99: \$3,595,731 Total: \$3,595,731
Prin. Invest.: D L AKIN
Tech. Officer: GSFC/D LAVERY
CASE Category: 11 - ASTRONOMY

NCCW 80 UNIVERSITY OF MARYLAND - COLLEGE PARK 5392
 DEVELOPMENT OF THE RANGER TELEROBOTIC FLIGHT EXPERIMENT
 08/16/1995 - 07/30/1998 FY99: \$0 Total: \$4,221,478
Prin. Invest.: D L AKIN
Tech. Officer: HQ/D LAVERY
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 30332 UNIVERSITY OF MARYLAND - COLLEGE PARK 5393
 GLOBAL CHANGE FELLOWSHIP
 08/31/1995 - 08/31/1998 FY99: -\$166 Total: \$43,834
Prin. Invest.: B KEDEM
Tech. Officer: HQ/G ASRAR, HQ/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 51096 UNIVERSITY OF MARYLAND - COLLEGE PARK 5394
 GRADUATE STUDENT RESEARCHERS (UMF) PROGRAM
 07/07/1993 - 10/31/1997 FY99: -\$634 Total: \$43,366
Prin. Invest.: R MUSHOTZKY
Tech. Officer: GSFC/M BURRELL
CASE Category: 11 - ASTRONOMY

NGT 1 52158 UNIVERSITY OF MARYLAND - COLLEGE PARK 5395
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/23/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M LEWIS
Tech. Officer: LARC/C E COCKRELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 2 52214 UNIVERSITY OF MARYLAND - COLLEGE PARK 5396
 SHAPE MEMORY ALLOY ACTUATION FOR ACTIVE TUNING OF COMPOSITE SHAFTS
 07/17/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: I CHOPRA
Tech. Officer: ARC/K Q NGYUEN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50 UNIVERSITY OF MARYLAND - COLLEGE PARK 5397
 DEVELOPMENT OF A RATCHETLESS WRENCH FOR EXTRAVEHIC
 06/23/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: D L AKIN
Tech. Officer: GSFC/M S BURRELL
CASE Category: 46 - MECHANICAL ENGR

NGT 5 52 UNIVERSITY OF MARYLAND - COLLEGE PARK 5398
 GSRP TRAINING GRANT: "REGIONAL SCALE MODELING" ST ERIC ALTSHULER; GSFC TECHNICAL ADVISOR: WEI-KUO T
 06/23/1997 - 06/30/1998 FY99: -\$4,539 Total: \$17,461
Prin. Invest.: D ZHANG
Tech. Officer: GSFC/G SOFFEN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 60 UNIVERSITY OF MARYLAND - COLLEGE PARK 5399
 MEASUREMENT OF FIBER STRAIN IN TERMINATED FIBER CO NNECTOR ASSEMBLIES USING IN-FIBER BRAGG GRATING A
 10/24/1997 - 08/14/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: T MEAD
Tech. Officer: GSFC/G ASRAR
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 5 62 UNIVERSITY OF MARYLAND - COLLEGE PARK 5400
 1998 ASEE-NASA SUMMER FACULTY FELLOWSHIP PROGRAM (AERONAUTICS AND SPACE RESEARCH)
 04/22/1998 - 09/30/1999 FY99: \$0 Total: \$357,996
Prin. Invest.: M GAVRILAS
Tech. Officer: GSFC/G A SOFFEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 99 UNIVERSITY OF MARYLAND - COLLEGE PARK 5401
 ESTIMATION OF TROPICAL FOREST ABOVEGROUND USING LARGE FOOTPRINT LIDAR
 08/20/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R DUBAYAH, J DRAKE
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 100 UNIVERSITY OF MARYLAND - COLLEGE PARK 5402
 GLOBAL CLIMATE CHANGE AND CHOLERA: MODELING OF CHO LERA OCCURRENCE IN SELECTED COASTAL AREAS USING S
 08/23/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: E RUSSEK-COHEN
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30087 UNIVERSITY OF MARYLAND - COLLEGE PARK 5403
 ON THE ESTIMATION OF AREA AVERAGE RAIN RATE BASED EARTH SYSTEM SCIENCE FELLOWSHIP PROGRAM/PFEIFFER
 09/09/1997 - 08/31/1998 FY99: -\$4,208 Total: \$17,792
Prin. Invest.: B KEDEM
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30142 UNIVERSITY OF MARYLAND - COLLEGE PARK 5404
 THE EFFECT OF WARM TROPICAL ATLANTIC SST ON EARLY SEASON CARIBBEAN RAIN-FALL
 08/27/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: A VERNEKAR, TAYLOR
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30196 UNIVERSITY OF MARYLAND - COLLEGE PARK 5405
 TORNADOES: COHERENT FLOW STRUCTURES IN ATMOSPHERIC TURBULENCE
 08/18/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: F BAER/NAWRI
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50083 UNIVERSITY OF MARYLAND - COLLEGE PARK 5406
 CHEMISTRY IN COMETS HALE-BOPP AND HYAKUTAKE
 09/05/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: A HEARN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50217 UNIVERSITY OF MARYLAND - COLLEGE PARK 5407
 CONVECTIVE EFFECTS ON TROPOSPHERIC OZONE CHEMISTRY STUDIED WITH COUPLED CLOUD/CHEMISTRY MOD
 09/15/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: K PICKERING
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8501 UNIVERSITY OF MARYLAND - EASTERN SHORE 5408
 UNIVERSITY OF MARYLAND EASTERN SHORE PRE-COLLEGE TO COLLEGE ENGINEERING BRIDGE PROGRAM
 05/12/1999 - 04/30/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: M WILSON
Tech. Officer: WFF/D MENCHAN
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 64 UNIVERSITY OF MARYLAND - EASTERN SHORE 5409
 PRE-COLLEGE TO COLLEGE BRIDGE PROGRAM FOR SUMMER 1 998
 05/26/1998 - 10/31/1999 FY99: \$0 Total: \$86,000
Prin. Invest.: D NAGCHAUDRI
Tech. Officer: GSFC/R WESTCOTT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4254 UNIVERSITY OF MARYLAND BALTIMORE 5410
 RESEARCH DEVELOPMENT OF A HIGH PERFORMANCE BALTIMORE SPATIAL
 DATABASE CALIBRATION TESTBED DIRECTED TOW
 04/01/1997 - 03/31/2000 FY99: \$154,277 Total: \$452,142
Prin. Invest.: D W FORESMAN, NONE
Tech. Officer: GSFC/N MAYNARD
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8379 UNIVERSITY OF MARYLAND BALTIMORE 5411
 VARIATIONAL ASSIMILATION OF TRMM-DERIVED PRECIPITATION
 OBSERVATIONS FOR THE IMPROVEMENT OF NUMERICAL
 04/14/1999 - 04/14/2000 FY99: \$24,797 Total: \$24,797
Prin. Invest.: W S OLSON
Tech. Officer: GSFC/O W THEILE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1573 UNIVERSITY OF MARYLAND BALTIMORE 5412
 IONS AND PROTEIN ASSOCIATION: AW AND PROTEIN CRYSTALS
 01/19/1999 - 11/30/2002 FY99: \$119,000 Total: \$119,000
Prin. Invest.: K COLLINS
Tech. Officer: MSFC/B GUYNE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 921 UNIVERSITY OF MARYLAND BALTIMORE 5413
 REMOTE DECISION-MAKING FOR TRAUMA PATIENT RESUSCITATION
 08/28/1995 - 05/31/1998 FY99: \$0 Total: \$289,736
Prin. Invest.: C F MACKENZIE
Tech. Officer: ARC/J MORASANO
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 1 2022 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5414
 A CLIMATOLOGY OF TROPOSPHERIC CO OVER THE CENTRAL AND SOUTH-
 EASTERN UNITED STATES AND THE SOUTHWESTERN
 03/12/1998 - 03/11/2001 FY99: \$63,000 Total: \$138,000
Prin. Invest.: W W MCMILLAN, G MORRIS, L STROW
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1094 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5415
 SCALABLE BENCHMARKS FOR MASS STORAGE SYSTEMS
 12/06/1996 - 12/31/1998 FY99: \$0 Total: \$192,638
Prin. Invest.: E L MILLER
Tech. Officer: ARC/J R LEKASHMAN, ARC/S F WALWORTH
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2751 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5416
 OUTREACH PROGRAM FOR FEDERAL LABS
 10/07/1994 - 06/30/1999 FY99: \$200,000 Total: \$703,325
Prin. Invest.: HIABROWSKI
Tech. Officer: GSFC/D MENCHEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3907 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5417
 LABORATORY QUANTITATIVE SPECTROSCOPY OF MODELS OF A
 02/11/1997 - 12/31/1999 FY99: \$43,953 Total: \$188,564
Prin. Invest.: D SIROTA
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6093 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5418
 EFFECTS OF EXPOSURE TO HEAVY PARTICLES
 09/05/1997 - 05/30/1999 FY99: \$0 Total: \$36,876
Prin. Invest.: B RABIN
Tech. Officer: HQ/L CHAMBERS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6460 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5419
 VALIDATION OF MOPITT COLUMN & PROFILE CO FROM SPAC EBORNE, AIR-
 BORNE, & GROUND-BASED INTERFEROMETERS
 10/14/1997 - 09/30/2000 FY99: \$85,894 Total: \$163,057
Prin. Invest.: W MCMILLAN
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6514 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5420
 DEVELOPMENT AND SUPPORT OF IMPLEMENTATION PROGRAM FOR EOS
 POTENTIAL USER COMMUNITY THROUGH REGIONAL
 11/25/1997 - 09/30/1999 FY99: \$270,000 Total: \$445,000
Prin. Invest.: D W FORESMAN
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6555 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5421
 MOLECULAR DAMAGE OF HUMAN CELLS BY X-RAYS AND NEUTRONS
 10/24/1997 - 04/30/2000 FY99: \$0 Total: \$220,538
Prin. Invest.: E BALCER-KUBICZEK
Tech. Officer: GSFC/W SCHIMMERLING
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6574 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5422
 VALIDATION OF H2O & O3 MEASUREMENTS FROM SAGE III USING TRAJEC-
 TORY MAPPING & CONSTITUENT RECO
 11/17/1997 - 10/31/1998 FY99: -\$34,546 Total: \$27,049
Prin. Invest.: G A MORRIS
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6675 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5423
 VALIDATION OF CLOUD OPTICAL DEPTHS RETRIEVED FROM EOS/MODIS
 DATA
 12/01/1997 - 09/30/2000 FY99: \$5,680 Total: \$134,276
Prin. Invest.: A MARSHAK
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6681 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5424
 ASSIMILATION OF WIND OBSERVATIONS FROM THE HIGH RESOLUTION
 DOPPLERIMAGER
 12/05/1997 - 11/30/1999 FY99: \$140,453 Total: \$282,660
Prin. Invest.: D MENARD
Tech. Officer: GSFC/C JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6996 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5425
 A STUDY OF UNCERTAINTIES FOR MODIS CLOUD RETRIEVALS OF OPTI-
 CAL THICKNESS AND EFFECTIVE RADIUS
 02/06/1998 - 12/14/1999 FY99: \$0 Total: \$110,510
Prin. Invest.: D PLATNICK
Tech. Officer: GSFC/D STARR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7385 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5426
 X-RAY SPECTROSCOPY OF ACTIVE GALACTIC NUCLEI: (LT SA)
 05/15/1998 - 06/30/2000 FY99: \$117,934 Total: \$231,381
Prin. Invest.: T J TURNER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7562 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5427
 SIMPLE MODELS OF THE SPATIAL DISTRIBUTION OF CLOUD RADIATIVE
 PROPERTIES FOR REMOTE SENSING STUDIES
 06/29/1998 - 06/30/1999 FY99: \$0 Total: \$46,995
Prin. Invest.: R PINCUS
Tech. Officer: GSFC/W WISCOMBEE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7563 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5428
 MODELING OF SHORTWAVE RADIATION FIELDS USING ATMOSPHERIC
 RADIATION MEASUREMENTS (ARM) AND LANDSAT D
 06/29/1998 - 06/30/2000 FY99: \$76,600 Total: \$178,520
Prin. Invest.: A MARSHAK
Tech. Officer: GSFC/W WISCOMBE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7774 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5429
 CLOUDLESS SCENE IDENTIFICATION FOR AEROSOL RETRIEVAL FROM
 TOMS MEASUREMENTS
 10/28/1998 - 10/31/1999 FY99: \$64,000 Total: \$64,000
Prin. Invest.: O TORRES
Tech. Officer: GSFC/M I MISCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7909 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5430
 TRMM PRECIPITATION RADAR: DEVELOPMENT OF A RAIN RETRIEVAL
 ALGORITHM USING GROUND VALIDATION DATA
 12/08/1998 - 12/14/1999 FY99: \$90,082 Total: \$90,082
Prin. Invest.: E AMITAI
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7997 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5431
 PROFILER OBSERVATIONS IN TRMM: VALIDATION FOR LATENT HEATING
 AND PRECIPITATION MEASUREMENTS
 01/06/1999 - 12/31/1999 FY99: \$35,837 Total: \$35,837
Prin. Invest.: R CIFELLI
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8201 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5432
 AIRBORNE SCANNING RAMAN LIDAR SYSTEM BASED ON HOLOGRAPHIC
 OPTICAL ELEMENT SCANNER/RECEIVER
 02/08/1999 - 02/14/2000 FY99: \$49,334 Total: \$49,334
Prin. Invest.: H PLOTKIN
Tech. Officer: GSFC/D WHITMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8231 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5433
 USE OF DATA FROM TRMM FIELD CAMPAIGNS IN IMPROVED INITIALIZA-
 TION AND VALIDATION OF HIGH RESOLUTION
 03/03/1999 - 03/14/2000 FY99: \$99,670 Total: \$99,670
Prin. Invest.: B S FERRIER
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8640 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5434
 THE MEYERHOFF SCHOLARSHIP PROGRAM
 07/06/1999 - 06/30/2000 FY99: \$200,000 Total: \$200,000
Prin. Invest.: E B BAKER
Tech. Officer: GSFC/D MENCHAN
CASE Category: 99 - MULTI INTERDISCIPLINARY, OTHER

NAG 5 31378 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5435
 EOS EXECUTION PHASE
 12/16/1991 - 12/14/2001 FY99: \$405,000 Total: \$2,108,000
Prin. Invest.: L L STROW
Tech. Officer: GSFC/E R KREINS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 99141 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5436
 COMPACT HYPERSPECTRAL MAPPER FOR ENVIRONMENTAL APPLICA-
 TIONS (CHYMERAS)
 02/08/1999 - 02/08/2000 FY99: \$301,118 Total: \$301,118
Prin. Invest.: S JANZ
Tech. Officer: GSFC/J HARTLEY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 92 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5437
 JOINT CENTER FOR EARTH SYSTEMS TECHNOLOGY
 06/27/1995 - 06/30/1998 FY99: \$0 Total: \$4,489,006
Prin. Invest.: S H MELFI
Tech. Officer: GSFC/R E HARTLEY, GSFC/C E COTE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 220 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5438
 DESKTOP STEREOSCOPIC VISUALIZATION AND ANALYSIS OF MULTI-DI-
 MENSIONAL DATA SETS
 08/19/1997 - 12/31/1998 FY99: \$0 Total: \$68,467
Prin. Invest.: D S EBERT
Tech. Officer: GSFC/A ROBERTS
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 5 339 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5439
 JOINT CENTER FOR EARTH SYSTEM TECHNOLOGY NEW AWARD
 07/01/1998 - 06/30/2000 FY99: \$3,765,103 Total: \$5,101,068
Prin. Invest.: S H MELFI, R HOFF
Tech. Officer: GSFC/R E HARTLEY, GSFC/C E COTE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 361 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5440
 DESKTOP STEREOSCOPIC VISUALIZATION AND ANALYSIS OF MULTI-DI-
 MENSIONAL DATA SETS
 09/08/1998 - 09/14/2000 FY99: \$64,818 Total: \$129,876
Prin. Invest.: D S EBERT
Tech. Officer: GSFC/A ROBERTS
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 367 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5441
 LHEA/UMBC COOPERATIVE AGREEMENT (LUCA)
 10/20/1998 - 12/31/1999 FY99: \$119,990 Total: \$119,990
Prin. Invest.: G P SUMMERS
Tech. Officer: GSFC/J F ORMES
CASE Category: 11 - ASTRONOMY

MASSACHUSETTS

NASA'S UNIVERSITY PROGRAM

NGT 5 48 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5442
 HOLOGRAPHIC STORAGE USING PHOTOREFRACTIVE POLYMERS
 06/23/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: L M HAYDEN
 Tech. Officer: GSFC/M S BURRELL
 CASE Category: 22 - COMPUTER SCIENCE

NGT 5 53 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5443
 PERFORMANCE ANALYSIS OF A HEAT DRIVEN PULSE PUMP
 06/23/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
 Prin. Invest.: N T WRIGHT
 Tech. Officer: GSFC/M S BURRELL
 CASE Category: 46 - MECHANICAL ENGR

NGT 5 90049 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5444
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/12/1997 - 08/14/1998 FY99: -\$8 Total: \$47,992
 Prin. Invest.: R KAIL
 Tech. Officer: GSFC/R LAWRENCE
 CASE Category: 46 - MECHANICAL ENGR

NCC 5 194 WESTERN MARYLAND COLLEGE 5445
 GROUND-BASED TESTING OF A PROTOTYPE HOLOGRAPHIC AT FOR ENVIRONMENTAL REMOTE SENSING (PHASERS)
 05/15/1997 - 04/30/1998 FY99: \$0 Total: \$15,000
 Prin. Invest.: D GUERRA
 Tech. Officer: GSFC/G SCHWEMMER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

MASSACHUSETTS

NAG 1 955 BOSTON COLLEGE 5446
 ENHANCEMENT OF SOLID-STATE INFRARED LASER OUTPUT VIA INTER-IONIC ENERGY TRANSFER
 01/17/1989 - 04/30/1998 FY99: -\$2,320 Total: \$329,243
 Prin. Invest.: B DIBARTOLO
 Tech. Officer: LARC/P BROCKMAN
 CASE Category: 13 - PHYSICS

NAG 1 2057 BOSTON COLLEGE 5447
 ENHANCEMENT OF SOLID STATE LASER OUTPUT VIA INTER IONIC ENERGY TRANSFER
 04/24/1998 - 11/30/2000 FY99: \$92,640 Total: \$143,462
 Prin. Invest.: B DIBARTOLO, B WALSH
 Tech. Officer: LARC/N P BARNES, LARC/J C BARNES
 CASE Category: 13 - PHYSICS

NAG 5 4946 BOSTON COLLEGE 5448
 CHANGES IN MAGNETIC TOPOLOGY ASSOCIATED WITH CORON OBSERVED BY LASCO
 06/24/1997 - 09/30/1999 FY99: \$0 Total: \$49,998
 Prin. Invest.: D F WEBB
 Tech. Officer: GSFC/W J WAGNER
 CASE Category: 13 - PHYSICS

NAG 8 1304 BOSTON COLLEGE 5449
 R/S FIBRIL FORMATION BY ALZHEIMER'S DISEASE AMYLOID IN MICROGRAVITY
 10/24/1996 - 10/23/1998 FY99: \$0 Total: \$314,620
 Prin. Invest.: D KIRSCHNER
 Tech. Officer: MSFC/L KARR, MSFC/D C CARTER
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 3 1844 BOSTON UNIVERSITY 5450
 DETERMINATION OF INTERFACIAL RHEOLOGICAL PROPERTIES THROUGH MICROGRAVITY OSCILLATIONS OF BUBBLES DR
 05/03/1996 - 05/31/2000 FY99: \$68,000 Total: \$252,000
 Prin. Invest.: A NADIM
 Tech. Officer: GRC/B SINGH
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 2121 BOSTON UNIVERSITY 5451
 RHEOLOGY OF FOAM NEAR THE ORDER-DISORDER TRANSITION
 02/17/1998 - 01/07/2000 FY99: \$50,000 Total: \$100,000
 Prin. Invest.: R G HOLT, J G MCDANIEL
 Tech. Officer: GRC/R B ROGERS
 CASE Category: 13 - PHYSICS

NAG 3 2143 BOSTON UNIVERSITY 5452
 SONOLUMINESCENCE IN SPACE: THE CRITICAL ROLE OF BUOYANCY IN STABILITY AND EMISSION MECHANISMS
 04/10/1998 - 01/08/2002 FY99: \$105,000 Total: \$205,000
 Prin. Invest.: R G HOLT, R A ROY
 Tech. Officer: GRC/N R HALL
 CASE Category: 13 - PHYSICS

NAG 5 690 BOSTON UNIVERSITY 5453
 A SOUNDING ROCKET PROGRAM IN EXTREME AND FAR UV INTERFEROMETRY
 04/29/1992 - 01/31/2000 FY99: \$270,000 Total: \$2,352,044
 Prin. Invest.: S CHAKRABARTI
 Tech. Officer: GSFC/R H PLESS
 CASE Category: 13 - PHYSICS

NAG 5 2266 BOSTON UNIVERSITY 5454
 CLUSTER RAPID IMAGING ELECTRON SPECTROMETER EFFORT
 05/07/1993 - 06/30/1998 FY99: \$0 Total: \$598,108
 Prin. Invest.: T A FRITZ
 Tech. Officer: GSFC/M L GOLDSTEIN
 CASE Category: 13 - PHYSICS

NAG 5 2578 BOSTON UNIVERSITY 5455
 GGS POLAR CAMMICE FLIGHT PREPARATION AND I&T PHASE
 04/14/1994 - 11/30/1998 FY99: \$19,833 Total: \$1,893,187
 Prin. Invest.: T A FRITZ
 Tech. Officer: GSFC/M H ACUNA
 CASE Category: 13 - PHYSICS

NAG 5 3337 BOSTON UNIVERSITY 5456
 BLOCK GRANT FOR ISO FAR-INFRARED SPACE STUDIES
 08/09/1996 - 02/28/1999 FY99: \$0 Total: \$43,500
 Prin. Invest.: D P CLEMENS
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3384 BOSTON UNIVERSITY 5457
TOWARD A REFINED UNDERSTANDING OF THE HIGH-ENERGY GAMMA-RAY UNIVERSE
08/28/1996 - 08/31/2000 FY99: \$200,000 Total: \$365,000
Prin. Invest.: J R MATTOX
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3439 BOSTON UNIVERSITY 5458
MONITORING CHANGE IN TEMPERATE CONIFEROUS FOREST E COSYSTEMS
10/07/1996 - 10/31/1999 FY99: \$233,243 Total: \$630,910
Prin. Invest.: C WOODCOCK
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3457 BOSTON UNIVERSITY 5459
MODELING AND REMOTE SENSING OF RADIATION ENERGY INTERACTIONS AND PHYSIOLOGICAL FUNCTIONING IN
10/10/1996 - 04/30/1999 FY99: -\$637 Total: \$49,208
Prin. Invest.: R B MYNENI
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3458 BOSTON UNIVERSITY 5460
PHOTOSYNTHETICALLY ACTIVE RADIATION IN THE CURCUMPOLE BOREAL FOREST BIOME: ANALYSIS OF AN 11-YEAR
10/28/1996 - 04/30/1998 FY99: -\$7,100 Total: \$32,646
Prin. Invest.: D DYE
Tech. Officer: GSFC/B N HOLBEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3748 BOSTON UNIVERSITY 5461
THE MAGNETOSPHERIC MAPPING MISSION
03/10/1997 - 03/14/2000 FY99: \$0 Total: \$200,000
Prin. Invest.: D E SPENCE
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 3806 BOSTON UNIVERSITY 5462
TIMING THE GEMINGA PULSAR WITH HIGH-ENERGY GAMMA RAY MULTIWAVELENGTH STUDY OF THE GAMMA-RAY BLAZER P
12/13/1996 - 12/14/1999 FY99: \$15,000 Total: \$76,000
Prin. Invest.: J R MATTOX
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3830 BOSTON UNIVERSITY 5463
A SEARCH FOR PULSED 2-200 KEV EMISSION FROM GEMINGA
02/11/1997 - 02/14/2000 FY99: \$0 Total: \$11,000
Prin. Invest.: J R MATTOX
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3839 BOSTON UNIVERSITY 5464
FREQUENCY STRATIFICATION OF THE NONTHERMAL EMISSION
02/24/1997 - 02/29/2000 FY99: \$93,500 Total: \$286,000
Prin. Invest.: A P MARSCHER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3991 BOSTON UNIVERSITY 5465
VITAMIN D RDA FROM SUPPLEMENT OR LIGHT
02/26/1997 - 05/14/1999 FY99: \$0 Total: \$402,916
Prin. Invest.: M F HOLICK
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3999 BOSTON UNIVERSITY 5466
A SILICON ANODE DETECTOR WITH INTEGRATED ELECTRONICS
03/06/1997 - 02/28/2000 FY99: \$164,700 Total: \$491,700
Prin. Invest.: D CHAKRABARTI
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4245 BOSTON UNIVERSITY 5467
MONITORING OF TWO BLAZARS WITH FREQUENCY-SIMULTANEOUS MULTIWAVELENGTH MONITORING OF THE PROMINENT BLAZER
04/07/1997 - 04/14/1999 FY99: \$0 Total: \$38,979
Prin. Invest.: A MARSCHER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4246 BOSTON UNIVERSITY 5468
USE OF ENERGETIC NEUTRAL ATOMS AS DIAGNOSTICS OF M PROCESSES
03/26/1997 - 04/30/2001 FY99: \$71,000 Total: \$157,500
Prin. Invest.: D MENDILLO
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4247 BOSTON UNIVERSITY 5469
GLOBAL MAGNETIC GEOMETRY OF THE OPEN MAGNETOSPHERE ORIENTATIONS
03/26/1997 - 04/30/1998 FY99: \$0 Total: \$73,655
Prin. Invest.: D L SISCOE
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4273 BOSTON UNIVERSITY 5470
SEPARATING SPATIAL AND TEMPORAL VARIATIONS OF THE NEARLY COLOCATED SATELLITES
04/04/1997 - 04/30/2000 FY99: \$120,000 Total: \$222,632
Prin. Invest.: D E SPENCE
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4426 BOSTON UNIVERSITY 5471
CONTINUED STUDIES OF OUTER SOLAR SYSTEM ATMOSPHERE
04/17/1997 - 08/31/1999 FY99: \$14,330 Total: \$171,000
Prin. Invest.: D V YELLE
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4660 BOSTON UNIVERSITY 5472
TRANSIENT FLOWS IN THE MAGNETOSPHERIC CUSP: GROUND CORRELATION
06/05/1997 - 12/31/1999 FY99: \$0 Total: \$153,670
Prin. Invest.: D HUGHES
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4682 **BOSTON UNIVERSITY** **5473**
 REMOTE SENSING OF MAGNETOSPHERIC STRUCTURE USING (PARTICLE
 AND FIELD DATA
 06/10/1997 - 08/31/1998 FY99: \$0 Total: \$42,025
 Prin. Invest.: D E SPENCE
 Tech. Officer: GSFC/J GREBOWSKY
 CASE Category: 13 - PHYSICS

NAG 5 4707 **BOSTON UNIVERSITY** **5474**
 USE OF NASA'S GLOBAL POSITIONING SYSTEM (GPS) MONI STUDIES OF
 IONOSPHERIC STRUCTURE AND VARIABILITY
 06/11/1997 - 05/31/2000 FY99: \$88,250 Total: \$200,000
 Prin. Invest.: D MENDILLO
 Tech. Officer: GSFC/M M MELLOTT
 CASE Category: 13 - PHYSICS

NAG 5 4850 **BOSTON UNIVERSITY** **5475**
 POLAR-WIDE GEOPHYSICAL PRODUCTS DERIVED FROM AVHRR
 07/25/1997 - 03/31/1999 FY99: \$0 Total: \$11,073
 Prin. Invest.: D KEY
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4903 **BOSTON UNIVERSITY** **5476**
 DOCUMENTING, UNDERSTANDING, AND PRECDICTING THE AG RADIATION
 FLUX FOR SHEBA
 06/20/1997 - 08/31/1999 FY99: -\$24,530 Total: \$67,585
 Prin. Invest.: D R KEY
 Tech. Officer: GSFC/E LINDSTROM
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4991 **BOSTON UNIVERSITY** **5477**
 A NEW SCIENTIFIC USE OF TOTAL ECLIPSES OF THE MOON GENERATION
 AND LOSS OF ATMOSPHERES PRIMITIVE BODI
 06/27/1997 - 06/30/1999 FY99: \$0 Total: \$80,000
 Prin. Invest.: D MENDILLO
 Tech. Officer: GSFC/J BERGSTRAHL
 CASE Category: 11 - ASTRONOMY

NAG 5 5137 **BOSTON UNIVERSITY** **5478**
 SPECTRE: STUDENT-RUN PROGRAM FOR EXOATMOSPHERIC COLLECT-
 ING TECHNOLOGIES & ROCKET EXPERIMENTS
 04/14/1997 - 05/30/2000 FY99: \$0 Total: \$33,195
 Prin. Invest.: S CHAKRABARTI
 Tech. Officer: GSFC/W JOHNSON
 CASE Category: 13 - PHYSICS

NAG 5 6065 **BOSTON UNIVERSITY** **5479**
 IDENTIFICATION OF LINKED VEGETATION INDEX AND SST PREDICTION OF
 PLANT PRODUCTIVITY FROM CLIMATE FORE
 07/28/1997 - 06/30/1998 FY99: -\$402 Total: \$29,598
 Prin. Invest.: R MYNENI
 Tech. Officer: GSFC/C TUCKER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6126 **BOSTON UNIVERSITY** **5480**
 EMPIRICAL MODELING OF THE INNER MAGNETOSPHERIC PLATIONS TO
 MAGNETIC EQUILIBRIA STRUCTURE AND FIELDS
 08/04/1997 - 06/30/1999 FY99: \$0 Total: \$50,001
 Prin. Invest.: D SPENCE
 Tech. Officer: GSFC/J BOHLIN
 CASE Category: 13 - PHYSICS

NAG 5 6214 **BOSTON UNIVERSITY** **5481**
 MODELING AND FORECASTING EFFECTS OF LAND-USE CHANG
 SOCIOECONOMIC DRIVERS
 08/18/1997 - 12/31/1999 FY99: \$0 Total: \$278,492
 Prin. Invest.: D K KAUFMANN
 Tech. Officer: GSFC/A C JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6245 **BOSTON UNIVERSITY** **5482**
 A NOVEL POLY-ETALON FABRY-PEROT SPECTROMETER FOR P
 08/19/1997 - 07/31/1998 FY99: -\$7,042 Total: \$109,977
 Prin. Invest.: D B KERR
 Tech. Officer: GSFC/B CAMPBELL
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6335 **BOSTON UNIVERSITY** **5483**
 XTE AO2 - A MULTIWAVELENGTH STUDY OF THE BLAZAR PKS 1622-297
 10/02/1997 - 09/30/1999 FY99: \$0 Total: \$15,000
 Prin. Invest.: J MATTOX
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 6540 **BOSTON UNIVERSITY** **5484**
 CENTER FOR EXCELLENCE IN REMOTE SENSING AT BOSTON UNIVERSITY
 10/21/1997 - 11/30/1998 FY99: \$0 Total: \$380,000
 Prin. Invest.: C E WOODCOCK
 Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6658 **BOSTON UNIVERSITY** **5485**
 ULYSSES DATA ANALYSIS: MAGNETIC TOPOLOGY OF HELIO SPHERIC
 STRUCTURES
 11/20/1997 - 12/31/1999 FY99: \$67,754 Total: \$133,231
 Prin. Invest.: N CROOKER
 Tech. Officer: GSFC/J LING
 CASE Category: 11 - ASTRONOMY

NAG 5 6716 **BOSTON UNIVERSITY** **5486**
 THERMAL AND HYDROLOGIC SIGNATURE OF SOIL CONTROLS ON EVAPO-
 RATION: A COMBINED ENERGY AND WATER
 12/10/1997 - 06/30/2000 FY99: \$0 Total: \$148,814
 Prin. Invest.: G SALVUCCI
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6755 **BOSTON UNIVERSITY** **5487**
 ANALYSIS AND MODELING OF COMET HALE-BOPP'S MULTIPLE TAILS
 12/16/1997 - 02/29/2000 FY99: \$49,000 Total: \$96,000
 Prin. Invest.: M MENDILLO
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 6926 **BOSTON UNIVERSITY** **5488**
 THE CLUSTER II RAPID RESPONSE EFFORT AT BOSTON UNIVERSITY-PRELAUNCH
 ACTIVITY
 02/05/1998 - 12/31/1999 FY99: \$52,717 Total: \$143,337
 Prin. Invest.: T FRITZ
 Tech. Officer: GSFC/L CHRISTENSEN
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 7049 **BOSTON UNIVERSITY** **5489**
 WIND DATA ANALYSIS: GLOBAL HELIOSPHERIC STRUCTURE S
 02/26/1998 - 03/31/2001 FY99: \$56,667 Total: \$80,000
Prin. Invest.: N U CROOKER
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 7217 **BOSTON UNIVERSITY** **5490**
 GEOMETRIC OPTICAL MODELING OF DIRECTIONAL THERMAL RADIANCE
 FOR IMPROVEMENT OF LAND SURFACE TEMPERATU
 04/17/1998 - 04/14/2001 FY99: \$77,000 Total: \$172,304
Prin. Invest.: X LI
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7218 **BOSTON UNIVERSITY** **5491**
 MACHINE LEARNING TO IMPROVE LAND COVER CLASSIFICATIONS FROM
 MULTISENSOR AND MULTITEMPORAL DATA
 04/09/1998 - 04/14/2001 FY99: \$28,123 Total: \$55,196
Prin. Invest.: M FRIEDL
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7323 **BOSTON UNIVERSITY** **5492**
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 04/24/1998 - 04/30/2000 FY99: \$0 Total: \$9,970
Prin. Invest.: A P MARSCHER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7331 **BOSTON UNIVERSITY** **5493**
 XTE PROPOSAL MULTIWAVEBAND MONITORING OF THE RADIO GALAXY
 3C 120
 04/24/1998 - 04/30/2000 FY99: \$0 Total: \$10,500
Prin. Invest.: A MARSCHER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7338 **BOSTON UNIVERSITY** **5494**
 XTE PROPOSAL - CONTINUED RXTE OBSERVATIONS OF THREE BLAZARS
 04/24/1998 - 04/30/2000 FY99: \$0 Total: \$7,325
Prin. Invest.: A MARSCHER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7452 **BOSTON UNIVERSITY** **5495**
 SIMULATIONS AND THEORY OF THE FARLEY-BUNEMAN INSTABILITY IN
 THE E-REGION IONOSPHERE
 07/10/1998 - 08/31/2000 FY99: \$114,717 Total: \$157,357
Prin. Invest.: M OPPENHEIM
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 7472 **BOSTON UNIVERSITY** **5496**
 ADVANCED DATA SETS FROM FUSION OF AVHRR AND SEAWIFS DATA
 06/16/1998 - 06/30/2000 FY99: \$35,612 Total: \$70,775
Prin. Invest.: R MYNENI
Tech. Officer: GSFC/C TUCKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7677 **BOSTON UNIVERSITY** **5497**
 STUDIES BY THE CAMMICE INVESTIGATION TEAM DURING THE EXTENDED
 MISSION OF GGSPOL
 09/18/1998 - 09/30/2000 FY99: \$157,607 Total: \$722,607
Prin. Invest.: T FRITZ
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7706 **BOSTON UNIVERSITY** **5498**
 STUDIES OF MAGNETOSPHERIC ENERGETIC PARTICLES IN THE SOLAR
 MAXIMUM AREA
 10/01/1998 - 12/31/1999 FY99: \$150,000 Total: \$150,000
Prin. Invest.: H E SPENCER
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7841 **BOSTON UNIVERSITY** **5499**
 CUSP ENERGETIC PARTICLES: CONFINEMENT, ACCELERATION AND
 IMPLICATIONS (SEC 61 PROGRAM) NRA-98-03-
 11/17/1998 - 12/31/1999 FY99: \$70,000 Total: \$70,000
Prin. Invest.: J CHEN
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 7861 **BOSTON UNIVERSITY** **5500**
 DYNAMICS OF JOVIAN UPPER ATMOSPHERES FROM STELLAR OCCULTA-
 TIONS
 01/07/1999 - 12/31/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: D A YOUNG
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8012 **BOSTON UNIVERSITY** **5501**
 INVESTIGATIONS INTO THE ORIGIN OF THE MOON'S ATMOSPHERE:
 OBSERVATIONS AND MODELING
 01/13/1999 - 12/31/1999 FY99: \$68,176 Total: \$68,176
Prin. Invest.: M MENDILLO
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 8039 **BOSTON UNIVERSITY** **5502**
 MULTIPOINT ENERGETIC NEUTRAL ATOM STUDIES WITH POLAR, GEOTAIL,
 AND TIROS
 01/11/1999 - 01/14/2000 FY99: \$59,748 Total: \$59,748
Prin. Invest.: H E SPENCE
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 8135 **BOSTON UNIVERSITY** **5503**
 "SIGNATURES OF MAGNETOPAUSE RECONNECTION".
 01/29/1999 - 01/31/2000 FY99: \$127,870 Total: \$127,870
Prin. Invest.: G L SISCOE
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 8147 BOSTON UNIVERSITY 5504
 AN AUDIO-MULTIMEDIA WORKSTATION: SCIENCE DATA ANALYSIS USING-
 SONIFICATION AND SIMULTANEOUS
 02/04/1999 - 12/31/1999 FY99: \$89,585 Total: \$89,585
Prin. Invest.: J D SULLIVAN
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 8584 BOSTON UNIVERSITY 5505
 INVESTIGATION OF AERODYNAMIC AND RADIOMETRIC LAND SURFACE
 TEMPERATURES
 06/21/1999 - 06/30/2000 FY99: \$21,113 Total: \$21,113
Prin. Invest.: M A FRIEDL
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8659 BOSTON UNIVERSITY 5506
 COLLECTION OF LAI & FPAR DATA OVER THE TERRA CORE SITES
 08/31/1999 - 08/31/2000 FY99: \$25,000 Total: \$25,000
Prin. Invest.: R MYNENI
Tech. Officer: GSFC/J PRIVETTE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8666 BOSTON UNIVERSITY 5507
 DIRECT ESTIMATION OF THE FORM AND SCALE-DEPENDENCE OF SOIL
 MOISTURE CONTROL ON LAND SURFACE WATER
 07/01/1999 - 07/31/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: G D SALVUCCI
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8756 BOSTON UNIVERSITY 5508
 GRAVITATIONAL LENSING: RECENT PROGRESS AND FUTURE GOALS CON-
 FERENCE
 08/25/1999 - 06/30/2000 FY99: \$13,996 Total: \$13,996
Prin. Invest.: T BRAINERD
Tech. Officer: GSFC/L KALUZIENSKI
CASE Category: 11 - ASTRONOMY

NAG 8 1522 BOSTON UNIVERSITY 5509
 DIRECT USE OF SATELLITE REMOTE SENSING IN THE ESTIMATION OF
 HYDROLOGIC TRANSPORTS
 05/22/1998 - 04/30/2001 FY99: \$45,694 Total: \$87,555
Prin. Invest.: G D SALVUCCI
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 5255 BOSTON UNIVERSITY 5510
 THERMAL AND HYDROLOGIC SIGNATURES OF SOIL CONTROLS ON EVAP-
 ORATION
 11/18/1996 - 12/31/1997 FY99: -\$1,098 Total: \$146,932
Prin. Invest.: G SALVUCCI
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 31369 BOSTON UNIVERSITY 5511
 MODERATE RESOLUTION IMAGING SPECTROMETER INVESTIGATION -
 LAND COVER CHANGES
 12/30/1991 - 12/14/2001 FY99: \$659,000 Total: \$3,994,303
Prin. Invest.: W STRAHLER
Tech. Officer: GSFC/H OSEROFF
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 96061 BOSTON UNIVERSITY 5512
 MODIS
 09/27/1996 - 12/14/2001 FY99: \$440,000 Total: \$1,063,000
Prin. Invest.: R B MYNENI
Tech. Officer: GSFC/D TOLL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 97147 BOSTON UNIVERSITY 5513
 DATA ANALYSIS FOR CEPPAD
 02/28/1997 - 12/31/1998 FY99: \$0 Total: \$413,538
Prin. Invest.: H SPENCE
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 11 - ASTRONOMY

NGT 1 52199 BOSTON UNIVERSITY 5514
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 07/20/1998 - 06/30/1999 FY99: \$12,000 Total: \$22,000
Prin. Invest.: K P HARLING, B DI BARTOLO
Tech. Officer: LARC/J C BARNES, LARC/N P BARNES
CASE Category: 13 - PHYSICS

NGT 5 30223 BOSTON UNIVERSITY 5515
 RELATION BETWEEN INTERANNUAL VARIABILITY IN ATMOSPHERIC CO₂,
 SEA (ENSO) AND LAND SURFACE TEMPERATURE
 09/20/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R MYNENI, L ZHOU
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50171 BOSTON UNIVERSITY 5516
 TOMOGRAPHIC IMAGING OF THE HOT INTERSTELLAR MEDIA USING
 ULTRAVIOLET SPECTROSCOPY
 06/03/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: S CHAKRABARTI
Tech. Officer: HQ/A NURRIDIN
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6056 BRANDEIS UNIVERSITY 5517
 "ADAPTATION IN ARTIFICIAL GRAVITY ENVIRONMENTS"
 07/28/1997 - 08/14/1998 FY99: \$0 Total: \$239,400
Prin. Invest.: J LACKNER
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6100 BRANDEIS UNIVERSITY 5518
 THE GRAYBIEL LABORATORY ROTATING ROOM RESEARCH FACILITY
 07/01/1998 - 08/31/1999 FY99: \$276,390 Total: \$537,145
Prin. Invest.: D LACKNER
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1037 BRANDEIS UNIVERSITY 5519
 MOTOR ADAPTATION TO CORIOLIS AND CONTACT
 07/01/1998 - 06/30/2001 FY99: \$348,000 Total: \$441,000
Prin. Invest.: J LACKNER
Tech. Officer: JSC/C W LLOYD
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1038 **BRANDEIS UNIVERSITY** **5520**
 ADAPTATION IN ARTIFICIAL GRAVITY ENVIRONMENTS
 06/25/1998 - 06/30/2001 FY99: \$166,000 Total: \$217,000
Prin. Invest.: J LACKNER
Tech. Officer: JSC/C W LLOYD
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 50136 **BRANDEIS UNIVERSITY** **5521**
 DOPPLER FACTORS AND PROPER MOTIONS IN SUPERLUMINAL
 09/11/1997 - 01/31/2000 FY99: \$0 Total: \$44,000
Prin. Invest.: J F WARDLE
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1011 **BRIDGEWATER STATE COLLEGE** **5522**
 JOVE
 11/19/1993 - 08/31/1998 FY99: -\$14,929 Total: \$72,071
Prin. Invest.: J SULONOWSKI, R ENRIGHT
Tech. Officer: MSFC/F SIX
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6046 **CLARK UNIVERSITY** **5523**
 LAND-USE COVER IN THE SOUTHERN YUCATAN PENINSULA R
 07/31/1997 - 07/31/1999 FY99: \$0 Total: \$478,750
Prin. Invest.: B TURNER
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8559 **CLARK UNIVERSITY** **5524**
 PIXELING THE SOCIAL USING REMOTELY SENSED INFORMATION IN
 SOCIAL SCIENCE MODELS
 07/08/1999 - 06/30/2000 FY99: \$112,938 Total: \$112,938
Prin. Invest.: J GEOGHEGAN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30344 **CLARK UNIVERSITY** **5525**
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/08/1995 - 08/31/1998 FY99: -\$23,493 Total: \$20,507
Prin. Invest.: R E KASPERSON
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 97 **CLARK UNIVERSITY** **5526**
 INTEGRATED ASSESSMENT AND PROJECTION OF LAND-USE/ COVER
 CHANGE IN THE SOUTHERN YUCATAN PENINSULAR
 08/24/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: B L TURNER, S MANSON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30032 **CLARK UNIVERSITY** **5527**
 WEST SIBERIAN PEATLAND DYNAMICS IN RELATION TO THE
 10/23/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: S HERWITZ
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30056 **CLARK UNIVERSITY** **5528**
 THIRD YEAR FUNDING: THE PATTERN AND CONDITIONS FOR OVER THE
 HIMALAYAS
 09/06/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: R E KASPERSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30061 **CLARK UNIVERSITY** **5529**
 DIAGNOSIS OF SPATIAL AND TEMPORAL PATTERNS OF DRY LAND-AT-
 MOSPHERE WATER EXCHANGE IN THE TROPICAL SAV
 09/10/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: L LEWIS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30129 **CLARK UNIVERSITY** **5530**
 IDENTIFYING THE BIOPHYSICAL & HUMAN DIMENSIONS OF LAND DEG-
 RADATION IN THE SEMI-ARID KAROO, SOUTH AFR
 10/08/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: B TURNER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30147 **CLARK UNIVERSITY** **5531**
 IDENTIFYING THE LAND-MANAGEMENT INSTITUTIONS AND LANDSCAPE
 PATTERNS GOVERNING SAVANNA FIRE REGI
 08/31/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: B L TURNER, 11
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30153 **CLARK UNIVERSITY** **5532**
 LINKING REMOTE SENSING AND SOCIAL ANALYSIS: CAUSAL INFLUENCES
 OF TRANSITIONING ECONOMIES ON
 08/28/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: B L TURNER, 11, HAAN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30197 **CLARK UNIVERSITY** **5533**
 CONSERVATION IN THE SOUTHERN YUCATAN PENINSULAR REGION, MEX-
 ICO: LINKING LANDSCAPE ECOLOGY AND SOCIA
 08/18/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: B L TURNER, 11
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30217 **CLARK UNIVERSITY** **5534**
 SOCIALIZING MIOMBO GEOLOGY: CHANGE IN WOODLAND USE AND ITS
 MEANING FOR SUSTAINABLE LIVELIHOODS/STUD
 08/24/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: B L TURNER
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1305 **HARVARD UNIVERSITY** **5535**
 HIGH ALTITUDE AIRCRAFT AND BALLOON-BORNE OBSERVATION ON IN
 EARTH'S STRATOSPHERE
 06/28/1991 - 12/31/1998 FY99: -\$906 Total: \$12,556,220
Prin. Invest.: J G ANDERSON
Tech. Officer: LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1759 HARVARD UNIVERSITY 5536
 THE ORIGIN OF TROPOSPHERIC OZONE OVER THE SOUTH PACIFIC: ANALYSIS OF PEM-TROPIC DATA
 09/25/1995 - 09/30/1998 FY99: -\$1,412 Total: \$482,550
Prin. Invest.: D J JACOB, D A LOGAN
Tech. Officer: LARC/J M HOELL, JR, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1849 HARVARD UNIVERSITY 5537
 CLOUDS AND WATER VAPOR IN THE CLIMATE SYSTEM: REMOTELY PILOATED AIRCRAFT AND SATELLITES
 06/26/1996 - 02/28/1999 FY99: \$598,529 Total: \$2,721,547
Prin. Invest.: J G ANDERSON, R M GOODY
Tech. Officer: LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1909 HARVARD UNIVERSITY 5538
 THREE-DIMENSIONAL STUDY OF THE FACTORS CONTROLLING THE DISTRIBUTION OF OZONE AND RELATED SPECIES IN
 04/01/1997 - 03/31/2000 FY99: \$184,000 Total: \$644,000
Prin. Invest.: D J JACOB
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1969 HARVARD UNIVERSITY 5539
 CORRECTION IN GRANTEE'S NAME
 09/12/1997 - 03/11/1998 FY99: \$0 Total: \$15,000
Prin. Invest.: M COSMO, J DAVIS
Tech. Officer: LARC/S J KATZBERG, LARC/J L GARRISON
CASE Category: 13 - PHYSICS

NAG 1 2007 HARVARD UNIVERSITY 5540
 IN-SITU DETECTION OF OH, HO₂, ClO, BRO, NO₂, ClONO₂, H₂O, AND O₃ FROM THE ER-2
 02/18/1998 - 12/31/1999 FY99: \$1,975,071 Total: \$3,874,914
Prin. Invest.: J G ANDERSON
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2025 HARVARD UNIVERSITY 5541
 ANALYSIS OF INTERANNUAL AND LONG TERM VARIATIONS OF STRATOSPHERIC TRANSPORT OF OZONE AND DEVELOPMENT
 03/19/1998 - 01/31/2001 FY99: \$100,000 Total: \$240,000
Prin. Invest.: S C WOFSY
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2126 HARVARD UNIVERSITY 5542
 ANALYSIS AND MODELING OF PEM-TROPICS (B) DATA MY 1/3
 02/02/1999 - 12/31/2001 FY99: \$166,000 Total: \$166,000
Prin. Invest.: D J JACOB, J A LOGAN
Tech. Officer: LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1100 HARVARD UNIVERSITY 5543
 PHOTOCHEMISTRY OF THE UPPER TROPOSPHERE & LOWERMOST STRATOSPHERE AT NORTHERN MIDLATITUDES, & THE...
 01/09/1997 - 01/31/2000 FY99: \$102,246 Total: \$302,305
Prin. Invest.: D J JACOB
Tech. Officer: ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1300 HARVARD UNIVERSITY 5544
 FREE RADICALS & REACTIVE INTERMEDIATES FOR THE SAGE III OZONE LOSS & VALIDATION EXPERIMENT SOLVE MI
 03/09/1999 - 11/30/1999 FY99: \$297,609 Total: \$297,609
Prin. Invest.: J G ANDERSON
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1304 HARVARD UNIVERSITY 5545
 IN SITU MEASUREMENT OF CONCENTRATION OF ATMOSPHERIC CO₂ IN THE SAGE-2 OZONE LOSS & VALIDATION EXPERIMENT
 03/19/1999 - 02/29/2000 FY99: \$168,000 Total: \$168,000
Prin. Invest.: S C WOFSY
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1310 HARVARD UNIVERSITY 5546
 IN SITU MEASUREMENT OF CONCENTRATION OF ATMOSPHERIC CO₂ IN THE SAGE-3 OZONE LOSS & VALIDATION EXPERIMENT
 03/19/1999 - 12/31/1999 FY99: \$147,900 Total: \$147,900
Prin. Invest.: S C WOFSY
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1793 HARVARD UNIVERSITY 5547
 THE EXTENSIONAL OF NON-NEWTONIAN MATERIALS
 11/06/1995 - 11/30/2000 FY99: \$0 Total: \$381,000
Prin. Invest.: G H MCKINLEY
Tech. Officer: GRC/F P CHIARAMONTE
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2284 HARVARD UNIVERSITY 5548
 PHYSICS OF COLLOIDS IN SPACE PHYSICS OF COLLOIDS IN SPACE
 08/02/1999 - 06/30/2004 FY99: \$103,000 Total: \$103,000
Prin. Invest.: D WEITZ
Tech. Officer: GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 5 1624 HARVARD UNIVERSITY 5549
 SEARCH FOR NEW LOW LUMINOSITY GLOBULAR CLUSTER X-RAY SOURCES
 06/07/1991 - 12/14/1997 FY99: \$0 Total: \$115,698
Prin. Invest.: J E GRINDLAY
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2688 HARVARD UNIVERSITY 5550
 ASSESSMENT OF THE EFFECTS OF SUBSONIC AIRCRAFT ON OZONE USING A THREE DIMENSIONAL MODEL
 10/07/1994 - 04/15/1998 FY99: \$0 Total: \$768,890
Prin. Invest.: D J JACOB
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2971 HARVARD UNIVERSITY 5551
 INVESTIGATIONS OF THE EARTH'S MAIN MAGNETIC FIELD AND THE INTERIOR OF THE EARTH
 06/16/1995 - 06/30/1999 FY99: \$0 Total: \$150,288
Prin. Invest.: J BLOXAM
Tech. Officer: GSFC/P TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3085 HARVARD UNIVERSITY 5552
 GAS DYNAMICS AND THE FORMATION OF GALAXIES AND QUASARS
 10/05/1995 - 10/14/1998 FY99: \$0 Total: \$240,000
Prin. Invest.: A LOEB
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3256 HARVARD UNIVERSITY 5553
 COMPACT OBJECTS AND BINARIES IN GLOBULAR CLUSTERS AND THE GALAXY
 07/15/1996 - 09/30/1998 FY99: \$0 Total: \$141,080
Prin. Invest.: J GRINDLAY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3298 HARVARD UNIVERSITY 5554
 X-RAY SPECTRAL AND TEMPORAL STUDIES OF THE ULTRA COMPACT SYSTEM X1916-05
 08/09/1996 - 02/14/1998 FY99: -\$353 Total: \$19,247
Prin. Invest.: J GRINDLAY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3516 HARVARD UNIVERSITY 5555
 A GENERIC MODEL FOR GAMMA RAY BURSTS: THEORY AND D
 11/13/1996 - 11/14/1999 FY99: \$0 Total: \$25,000
Prin. Invest.: R NARAYAN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3553 HARVARD UNIVERSITY 5556
 AN INVESTIGATION OF THE COUPLING BETWEEN TROPOSPHERIC OZONE, SULFATE AEROSOLS AND CLIMATE.....
 12/05/1996 - 12/14/1999 FY99: \$321,000 Total: \$975,000
Prin. Invest.: D JACOB
Tech. Officer: GSFC/D RIND
CASE Category: 11 - ASTRONOMY

NAG 5 3564 HARVARD UNIVERSITY 5557
 MAPPING MAGNETIC FIELDS IN THE ISM
 01/14/1997 - 01/14/1999 FY99: \$0 Total: \$48,000
Prin. Invest.: A GOODMAN, I LUU
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3645 HARVARD UNIVERSITY 5558
 EVOLUTION OF PROTEROZOIC MICROORGANISMS AND ENVIRONMENT
 03/05/1997 - 11/30/2000 FY99: \$89,835 Total: \$260,362
Prin. Invest.: D H KNOLL
Tech. Officer: GSFC/M MEYER
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3709 HARVARD UNIVERSITY 5559
 DEVELOPMENT OF AN ULTRA SENSITIVE FAR INFRARED REFRIGERATOR INTEGRATED ON A SINGLE CHIP
 02/12/1997 - 08/31/1999 FY99: \$0 Total: \$300,000
Prin. Invest.: M NAHUM
Tech. Officer: GSFC/D HOLLAND
CASE Category: 11 - ASTRONOMY

NAG 5 3808 HARVARD UNIVERSITY 5560
 STUDIES OF BATSE TRANSIENTS AND BLACK HOLE X-RAY B HARD X-RAY EMISSION FROM X-RAY BURSTERS \$7017.00
 12/14/1996 - 10/31/1999 FY99: \$0 Total: \$31,871
Prin. Invest.: J E GRINDLAY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3890 HARVARD UNIVERSITY 5561
 LONG TERM HARD X-RAY MONITORING OF X-RAY BURSTERS
 05/27/1997 - 01/31/1998 FY99: \$0 Total: \$10,118
Prin. Invest.: J E GRINDLAY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3979 HARVARD UNIVERSITY 5562
 THEORETICAL STUDIES OF ATMOSPHERIC CHEMISTRY AND T STRATOSPHERE
 03/05/1997 - 01/31/1998 FY99: -\$154 Total: \$194,846
Prin. Invest.: S C WOFSY
Tech. Officer: GSFC/J A KAYE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4053 HARVARD UNIVERSITY 5563
 WHERE DOES THE POWER LAW BREAK IN X-RAY BUSTERS?
 03/11/1997 - 03/14/1999 FY99: \$0 Total: \$23,100
Prin. Invest.: J E GRINDLAY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4062 HARVARD UNIVERSITY 5564
 IS THERE A COSMOLOGICAL CONSTANT?
 03/18/1997 - 09/30/1999 FY99: -\$19,482 Total: \$66,918
Prin. Invest.: C S KOCHANKE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4132 HARVARD UNIVERSITY 5565
 A SEARCH FOR 23RD-MAGNITUDE KUIPER BELT COMETS
 03/13/1997 - 05/31/2000 FY99: \$20,417 Total: \$70,000
Prin. Invest.: D X SASSELOV
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4174 HARVARD UNIVERSITY 5566
 PALEOSOLS AS INDICATORS OF ATMOSPHERIC EVOLUTION
 03/24/1997 - 09/30/1999 FY99: \$121,874 Total: \$351,043
Prin. Invest.: D D HOLLAND
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4216 HARVARD UNIVERSITY 5567
 CCD PHOTOMETRY STUDY OF KUIPER BELT OBJECTS
 04/09/1997 - 02/29/2000 FY99: \$0 Total: \$79,417
Prin. Invest.: D X SASSELOV
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 4302	HARVARD UNIVERSITY	5568	
CROSS SECTION MEASUREMENTS FOR SOLAR COSMIC RAY ST			
04/12/1997 - 06/30/1999	FY99: \$5,360	Total: \$82,034	
Prin. Invest.: D SISTERSON			
Tech. Officer: HQ/J BOYCE			
CASE Category: 11 - ASTRONOMY			
NAG 5 4348	HARVARD UNIVERSITY	5569	
ABSOLUTE TRANSITION PROBABILITIES FOR LINES IN THE ASTROPHYSICAL ATOMS, MOLECULES AND IONS			
04/17/1997 - 12/31/1999	FY99: \$85,000	Total: \$250,475	
Prin. Invest.: W H PARKINSON			
Tech. Officer: GSFC/H HASAN			
CASE Category: 11 - ASTRONOMY			
NAG 5 4430	HARVARD UNIVERSITY	5570	
ISOTOPIC STUDIES OF SOLAR SYSTEMS ORIGINS			
05/06/1997 - 02/28/2000	FY99: \$48,000	Total: \$93,000	
Prin. Invest.: D B JACOBSEN			
Tech. Officer: GSFC/J BOYCE			
CASE Category: 11 - ASTRONOMY			
NAG 5 4522	HARVARD UNIVERSITY	5571	
DEVELOPMENT OF HOT-ELECTRON MICROBOLMETERS FOR OB COSMIC MICROWAVE BACKGROUND RADIATION			
05/28/1997 - 12/31/1999	FY99: \$16,958	Total: \$266,958	
Prin. Invest.: P NAHUM			
Tech. Officer: GSFC/H THRONSON			
CASE Category: 11 - ASTRONOMY			
NAG 5 4601	HARVARD UNIVERSITY	5572	
INVESTIGATION OF STAR FORMATION			
05/14/1997 - 04/30/1998	FY99: \$0	Total: \$45,000	
Prin. Invest.: D G CAMERON			
Tech. Officer: GSFC/J BOYCE			
CASE Category: 11 - ASTRONOMY			
NAG 5 4690	HARVARD UNIVERSITY	5573	
THEORETICAL RESEARCH IN PLANETARY PHYSICS			
06/26/1997 - 06/30/2000	FY99: \$0	Total: \$138,000	
Prin. Invest.: D CAMERON			
Tech. Officer: GSFC/D F NAVA			
CASE Category: 11 - ASTRONOMY			
NAG 5 4713	HARVARD UNIVERSITY	5574	
CRYSTAL-LIQUID DENSITY INVERSIONS IN LUNAR AND PLA			
06/17/1997 - 06/30/1999	FY99: \$0	Total: \$70,000	
Prin. Invest.: D G AGEE			
Tech. Officer: GSFC/D NAVA			
CASE Category: 11 - ASTRONOMY			
NAG 5 4720	HARVARD UNIVERSITY	5575	
TUNGSTEN ISOTOPE STUDIES OF METEORITES			
06/17/1997 - 03/31/2000	FY99: \$25,000	Total: \$75,000	
Prin. Invest.: D B JACOBSEN			
Tech. Officer: GSFC/D NAVA			
CASE Category: 11 - ASTRONOMY			
NAG 5 4722	HARVARD UNIVERSITY	5576	
NET ECOSYSTEM EXCHANGE OF CO2 AND NITROGEN OXIDES: MEASUREMENTS CLIMATIC & BIOLOGICAL CONTROLS & SPA			
06/11/1997 - 12/31/1998	FY99: \$0	Total: \$302,000	
Prin. Invest.: D WORSY			
Tech. Officer: GSFC/D WICKLAND			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
NAG 5 5103	HARVARD UNIVERSITY	5577	
DEVELOPMENT OF EXITE3, IMAGING DETECTORS AND A LONG-DURATION BALLOON GONDOLA			
02/11/1997 - 12/31/1999	FY99: \$216,119	Total: \$616,629	
Prin. Invest.: J E GRINDLAY			
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT			
CASE Category: 13 - PHYSICS			
NAG 5 6136	HARVARD UNIVERSITY	5578	
EDDY CORRELATION FLUX MEASUREMENTS OF CO2, O3 AND			
09/11/1997 - 04/30/1999	FY99: \$0	Total: \$330,000	
Prin. Invest.: D WOFSY			
Tech. Officer: HQ/D WICKLAND			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
NAG 5 6554	HARVARD UNIVERSITY	5579	
LABORATORY STUDIES IN UV AND EUV SOLAR PHYSICS			
10/24/1997 - 05/31/2000	FY99: \$150,710	Total: \$290,231	
Prin. Invest.: D H PARKINSON			
Tech. Officer: GSFC/W J WAGNER			
CASE Category: 59 - LIFE SCIENCE, OTHER			
NAG 5 6569	HARVARD UNIVERSITY	5580	
WORKSHOP ON LABORATORY ASTROPHYSICS			
11/19/1997 - 12/31/1998	FY99: \$0	Total: \$19,000	
Prin. Invest.: W H PARKINSON			
Tech. Officer: GSFC/H HASAN			
CASE Category: 11 - ASTRONOMY			
NAG 5 6994	HARVARD UNIVERSITY	5581	
ASCA PROPOSAL - WHY DO SOME X-RAY BURSTERS HAVE HARD X-RAY TAILS?			
02/10/1998 - 02/14/1999	FY99: \$0	Total: \$15,400	
Prin. Invest.: J GRINDLAY			
Tech. Officer: GSFC/N WHITE			
CASE Category: 11 - ASTRONOMY			
NAG 5 7039	HARVARD UNIVERSITY	5582	
STRUCTURE AND EVOLUTION OF X-RAY CLUSTERS: THEORY AND IMPLICATIONS FOR AXAF-ATP			
02/25/1998 - 02/14/2000	FY99: \$90,297	Total: \$178,515	
Prin. Invest.: A LOEB			
Tech. Officer: GSFC/D K WEST			
CASE Category: 11 - ASTRONOMY			
NAG 5 7201	HARVARD UNIVERSITY	5583	
GLOBAL THREE-DIMENSIONAL MODELING OF THE EFFECTS OF SUBSONIC AIRCRAFT ON OZONE			
03/24/1998 - 09/30/1999	FY99: \$147,000	Total: \$319,000	
Prin. Invest.: D JACOB			
Tech. Officer: GSFC/R W STEWART			
CASE Category: 31 - ATMOSPHERIC SCIENCE			

NAG 5 7393 HARVARD UNIVERSITY 5584
 STUDIES OF HARD TAILS IN X-RAY BURSTERS: KS1731-26 0 AND
 SLX1732-304
 05/12/1998 - 05/14/2000 FY99: \$0 Total: \$14,850
Prin. Invest.: J GRINDLANY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7403 HARVARD UNIVERSITY 5585
 ARE GS1826 AND SLX1735-269 BLACK HOLE OR NEUTRON STAR SYSTEMS
 05/13/1998 - 05/14/2000 FY99: \$0 Total: \$14,850
Prin. Invest.: J GRINDLAY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7534 HARVARD UNIVERSITY 5586
 LONG-TERM NET ECOSYSTEM EXCHANGE AT THE BOREAS NORTHERN
 OLD BLACKSPRUCE SITE: MECHANISMS FOR
 06/11/1998 - 05/31/2001 FY99: \$61,654 Total: \$450,654
Prin. Invest.: S C WORSY
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7610 HARVARD UNIVERSITY 5587
 INVESTIGATION OF STAR FORMATION PROCESSES
 07/31/1998 - 07/31/2000 FY99: \$10,000 Total: \$40,000
Prin. Invest.: A CAMERON
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7616 HARVARD UNIVERSITY 5588
 FUNDING FOR 'INVESTIGATIONS OF THE GEODYNAMO USING SATELLITE
 MAGNETIC FIELD OBSERVATIONS' (SENH98-0
 07/22/1998 - 01/14/2000 FY99: \$75,000 Total: \$112,000
Prin. Invest.: J BLOXHAM
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7768 HARVARD UNIVERSITY 5589
 STUDYING THE SUPERNOVA HISTORY OF THE UNIVERSE WITH THE NEXT
 GENERATION SPACE TELESCOPE
 01/11/1999 - 01/14/2000 FY99: \$28,008 Total: \$28,008
Prin. Invest.: R KIRSHNER
Tech. Officer: GSFC/E SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 7859 HARVARD UNIVERSITY 5590
 PHOTOABSORPTION CROSS SECTIONS AND THEIR TEMPERATURE
 DEPENDENCE FOR CO₂ AND H₂O IN THE 170 NM TO 20
 01/06/1999 - 12/31/1999 FY99: \$60,000 Total: \$60,000
Prin. Invest.: W H PARKINSON
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8467 HARVARD UNIVERSITY 5591
 STUDIES OF STAR AND PLANETARY SYSTEM FORMATION
 05/03/1999 - 04/30/2000 FY99: \$40,000 Total: \$40,000
Prin. Invest.: A W CAMERON
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8727 HARVARD UNIVERSITY 5582
 ORIGIN OF QUASAR ABSORPTION LINES IN A COSMOLOGICAL CONTEXT
 08/10/1999 - 12/31/1999 FY99: \$29,706 Total: \$29,706
Prin. Invest.: L E HERNQUIST
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8779 HARVARD UNIVERSITY 5593
 CLOUDS AND WATER VAPOR IN THE CLIMATE SYSTEM
 08/30/1999 - 01/31/2000 FY99: \$219,911 Total: \$219,911
Prin. Invest.: J ANDERSON
Tech. Officer: GSFC/R CURRAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1256 HARVARD UNIVERSITY 5594
 KINETICS OF NUCLEATION AND GROWTH FROM UNDERCOOLED MELTS
 05/24/1996 - 05/22/2000 FY99: \$175,000 Total: \$612,500
Prin. Invest.: M J AZIZ, F SPAEPEN
Tech. Officer: MSFC/P DOTY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 4609 HARVARD UNIVERSITY 5595
 CROSS SECTION MEASUREMENTS FOR SOLAR COSMIC RAY STUDIES
 08/17/1995 - 03/31/1998 FY99: \$0 Total: \$130,622
Prin. Invest.: M FRANKLIN
Tech. Officer: HQ/D NAVA
CASE Category: 12 - CHEMISTRY

NAS 1 18946 HARVARD UNIVERSITY 5596
 SAGE III SCIENCE SUPPORT; P.I. - WOFSY
 11/28/1989 - 01/31/2005 FY99: \$45,984 Total: \$350,930
Prin. Invest.: S C WOFSY
Tech. Officer: LARC/G MADDREA
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 2 694 HARVARD UNIVERSITY 5597
 DEVELOPMENT OF A HIGH-SENSITIVITY, FAST RESPONSE INSTRUMENT
 FOR IN SITU DETERMINATION OF CO₂
 09/27/1990 - 03/31/1999 FY99: \$0 Total: \$1,932,108
Prin. Invest.: S C WOFSY, D W TOOHEY
Tech. Officer: ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 897 HARVARD UNIVERSITY 5598
 LIGHTWEIGHT HIGH-PRECISION, FAST RESPONSE INSTRUMENT FOR AIR-
 BORNE CO₂ MEASUREMENTS FOR UAVS
 03/22/1995 - 12/31/1999 FY99: \$0 Total: \$1,054,804
Prin. Invest.: S C WOFSY
Tech. Officer: ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 913 HARVARD UNIVERSITY 5599
 STRAT CAMPAIGN: ER-2 PARTICIPATION
 08/25/1995 - 09/30/1998 FY99: \$0 Total: \$920,157
Prin. Invest.: J G ANDERSON
Tech. Officer: ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

MASSACHUSETTS

NASA'S UNIVERSITY PROGRAM

NCC 2 1053 HARVARD UNIVERSITY 5600
 THE PLANETARY CONTEXT OF BIOLOGICAL EVOLUTION
 09/14/1998 - 06/30/2003 FY99: \$341,805 Total: \$479,805
Prin. Invest.: A H KNOLL
Tech. Officer: ARC/T E BUNCH
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 5 341 HARVARD UNIVERSITY 5601
 NET ECOSYSTEM EXCHANGE OF CO2 AND H2O FROM PRIMARY TROPICAL FOREST IN CENTRAL AMAZONIA
 07/07/1998 - 12/31/1999 FY99: \$420,500 Total: \$696,000
Prin. Invest.: S C WOFSY
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30002 HARVARD UNIVERSITY 5602
 EFFECTS OF ELEVATED CO2 AND NITROGEN DEPOSITION ON AND COMMUNITY COMPOSITION IN A MIXED CONIFER-HARD
 10/11/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: F BAZZAZ
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30144 HARVARD UNIVERSITY 5603
 THE EFFECTS OF ADJANCENCY ARRANGEMENTS ON PLANT DIVERSITY IN THE ASPEN PARKLAND ALBERTA
 08/27/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R FORMAN, HERSPERG
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30152 HARVARD UNIVERSITY 5604
 BIOLOGICAL AND PHYSICAL CONTROLS ON EVAPOTRANSPIRATION IN A MID-LATITUDE FOREST
 08/28/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: S C WOFSY, LIN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30205 HARVARD UNIVERSITY 5605
 NITRIC ACID AND NITROGEN DIOXIDE FLUX MEASUREMENTS OVER A NORTH-AMERICAN FOREST/STUDENT: CASSANDRA H
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: S C WOFSY
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50020 HARVARD UNIVERSITY 5606
 OBSERVATIONS AND INSTRUMENTATION DEVELOPMENT TO STUDY TRON STARS
 07/14/1997 - 06/30/2000 FY99: \$0 Total: \$44,000
Prin. Invest.: J GRINDLEY
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50028 HARVARD UNIVERSITY 5607
 A COMBINED X-RAY AND GRAVITATIONAL LENSING DETERMINATIONS OF GALAXIES
 07/14/1997 - 08/31/2000 FY99: \$0 Total: \$44,000
Prin. Invest.: L HERNQUIST, FOX
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50122 HARVARD UNIVERSITY 5608
 AN X-RAY DETECTOR WITH BETTER THAN 10EV RESOLUTION RATOR, INTEGRATED ONTO A SINGLE CHIP
 09/10/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: D NAHUM
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50145 HARVARD UNIVERSITY 5609
 EFFICIENT, PORTABLE PARALLEL VOLUME RENDERING
 09/17/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: L G VALIANT
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50244 HARVARD UNIVERSITY 5610
 A KINEMATIC SURVEY OF NEARBY FIELD GALAXIES (STUDENT: SHEILA KANNAPPAN)
 06/02/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R KIRSHNER
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50258 HARVARD UNIVERSITY 5611
 STUDIES IN LOW TEMPERATURE ATOMIC PHYSICS USING A CRYOGENIC HYDROGEN MASER STUDENT: MARC HUMPHRIS
 07/07/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: W H PARKINSON
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT10 52601 HARVARD UNIVERSITY 5612
 GRADUATE STUDENT RESEARCH GRANT
 06/05/1995 - 06/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: M J HULLER
Tech. Officer: KSC/J SAGER
CASE Category: 55 - AGRICULTURE

NAG 1 991 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5613
 COMPOSITE FUSELAGE TECHNOLOGY
 04/10/1989 - 07/31/1999 FY99: \$48,845 Total: \$999,638
Prin. Invest.: P A LAGACE, M J GRAVES
Tech. Officer: LARC/J H STARNES, LARC/M J SHUART
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1587 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5614
 FINITE ELEMENT METHODS FOR THE SIMULATION OF HYPERSONIC FLOWS
 01/31/1994 - 03/31/1999 FY99: \$0 Total: \$354,452
Prin. Invest.: J PERAIRE, NONE
Tech. Officer: LARC/K S BEY, LARC/A R WIETING
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1758 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5615
 PHYSICAL PROCESSES GOVERNING ATMOSPHERIC TRACE CONSTITUENTS MEASURED FROM AIRCRAFT IN PEM-TROPICS
 09/25/1995 - 09/30/1999 FY99: \$0 Total: \$641,421
Prin. Invest.: D E NEWELL
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1805 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5616
 INTERPRETATION OF TRACE GAS DATA USING INVERSE METHODS AND GLOBAL CHEMICAL TRANSPORT MODELS
 02/08/1996 - 12/31/1998 FY99: \$0 Total: \$396,770
Prin. Invest.: R G PRINN
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1857 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5617
 FUNDAMENTAL ISSUES INVOLVED WITH MODE AWARENESS OF ADVANCED AUTOFLIGHT SYSTEMS
 07/24/1996 - 01/31/2000 FY99: \$74,000 Total: \$277,591
Prin. Invest.: R J HANSMAN
Tech. Officer: LARC/M T PALMER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1900 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5618
 TRACE GAS TRANSPORT IN THE TROPOSPHERE AND THE INTERPRETATION OF IN SITU CONCENTRATION MEASURE.
 02/10/1997 - 02/09/2000 FY99: \$71,000 Total: \$218,000
Prin. Invest.: R A PLUMB
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1901 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5619
 USE OF MAPS, GTE AND UARS-MLS DATA IN UNDERSTANDING TROPOSPHERIC PROCESSES CRITICAL TO MODEL DELV.
 02/10/1997 - 02/09/2000 FY99: \$86,000 Total: \$242,000
Prin. Invest.: R E NEWELL
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1974 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5620
 INVEST OF AIRBORNE ALERTING SYSTEMS FOR CLOSELY-SPACED PARALLEL RUNWAY APPROACH. NLPN 97-820
 10/22/1997 - 03/31/1999 FY99: \$0 Total: \$78,019
Prin. Invest.: J K KUCHAR
Tech. Officer: LARC/M C WALLER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1978 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5621
 FAST BOUND METHODS FOR LARGE SCALE SIMULATION WITH APPLICATION FOR ENGINEERING OPTIMIZATION
 12/10/1997 - 12/09/1999 FY99: \$140,000 Total: \$280,000
Prin. Invest.: A T PATERN, J PERAIRE
Tech. Officer: LARC/T A TANG, LARC/N M ALEXANDRIA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2027 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5622
 LARGE-SCALE STRATOSPHERIC TRANSPORT PROCESSES MY 1/3
 03/20/1998 - 02/28/1999 FY99: \$122,000 Total: \$264,000
Prin. Invest.: R A PLUMB
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2122 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5623
 UNSTRUCTURED MESH METHODS FOR THE SIMULATION OF HYPERSONIC FLOW
 12/23/1998 - 09/30/2001 FY99: \$101,244 Total: \$101,244
Prin. Invest.: J PERAIRE
Tech. Officer: LARC/K L BIBB, LARC/K J WEILMUNSTER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2152 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5624
 STUDIES OF TRACE GAS CHEMICAL CYCLES USING INVERSE METHODS & GLOBAL CHEMICAL TRANSPORT MODELS
 02/25/1999 - 12/31/2001 FY99: \$137,167 Total: \$137,167
Prin. Invest.: R G PRINN
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2173 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5625
 PHYS PROCESSES GOV'G ATMOSPHERIC TRACE CONSTITUENTS MEAS'D FROM A/C IN PEM-TROPICS-B (NRA-97-MTPE-04)
 05/03/1999 - 02/28/2002 FY99: \$252,000 Total: \$252,000
Prin. Invest.: R E NEWELL
Tech. Officer: LARC/J M HOELL, LARC/J R RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2189 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5626
 ALERTG SYS EVAL METHODOLOGY FOR TRAJ CORRIDOR CONFORMANCE MONITORING W/APPLIC CLOSELY SPACED PARALLEL
 04/28/1999 - 03/31/2000 FY99: \$70,417 Total: \$70,417
Prin. Invest.: J K KUCHAR
Tech. Officer: LARC/M C WALLER, LARC/T S ABBOTT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2203 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5627
 TRACER EVOLUTION AT HIGHER LATITUDES IN WINTER (SOLVE)
 06/17/1999 - 06/30/2001 FY99: \$16,500 Total: \$16,500
Prin. Invest.: R PLUMB
Tech. Officer: LARC/G MADDREA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2239 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5628
 REQUIREMENT ENGINEERING FOR SOFTWARE INTEGRITY AND SAFETY (NRA 98-LARC-8)
 09/23/1999 - 09/30/2002 FY99: \$52,933 Total: \$52,933
Prin. Invest.: N LEVESON
Tech. Officer: LARC/D E ECKMARDT
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 716 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5629
 SITUATIONAL AWARENESS ISSUES IN THE IMPLEMENTATION OF DATALINK
 06/26/1991 - 09/30/1999 FY99: \$0 Total: \$1,100,318
Prin. Invest.: R J HANSMAN
Tech. Officer: ARC/K CORKER
CASE Category: 49 - ENGINEERING, OTHER

MASSACHUSETTS

NASA'S UNIVERSITY PROGRAM

NAG 2 729 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5630
 MODELING INFORMATION PROCESSING IN FLIGHT MANAGEMENT
 08/27/1991 - 06/30/2000 FY99: \$300,000 Total: \$994,962
 Prin. Invest.: T B SHERIDAN
 Tech. Officer: ARC/S C LOZITO, ARC/E J HARTZELL
 CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 2 855 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5631
 ARCHIVING OF PLANETARY RING DATA
 07/16/1993 - 09/30/1999 FY99: \$5,000 Total: \$107,380
 Prin. Invest.: J L ELLIOT
 Tech. Officer: ARC/J N CUZZI
 CASE Category: 11 - ASTRONOMY

NAG 2 1105 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5632
 THE SASS OZONE & NOX EXPERIMENT (SONEX) OVER THE NORTH ATLANTIC: SELECTIVE SAMPLING BASED ON
 01/24/1997 - 12/31/1998 FY99: \$0 Total: \$248,070
 Prin. Invest.: N E NEWELL
 Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1111 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5633
 INVESTIGATION OF ALERT ZONE & DISPLAY CONCEPTS FOR FREE FLIGHT
 02/14/1997 - 12/31/1999 FY99: \$100,000 Total: \$319,977
 Prin. Invest.: J K KUCHAR
 Tech. Officer: ARC/S C LOZITO
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1128 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5634
 DEPARTURES PLANNING AT BUSY AIRPORTS
 05/09/1997 - 10/31/1999 FY99: \$176,724 Total: \$510,000
 Prin. Invest.: A R ODOMI, R J HANSMAN, E FERON
 Tech. Officer: ARC/D R ISSACSON, ARC/S C ATKINS
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 2 1136 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5635
 SDSI IMPLEMENTATION
 07/11/1997 - 05/31/1999 FY99: \$0 Total: \$101,156
 Prin. Invest.: R L RIVEST
 Tech. Officer: ARC/Y K LIU
 CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1272 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5636
 APPLYING ATC AUTOMATION TO ADDRESS ENVIRONMENTAL CONSIDERATIONS
 12/22/1998 - 11/30/1999 FY99: \$131,246 Total: \$131,246
 Prin. Invest.: J P CLARKE
 Tech. Officer: ARC/T J DAVIS/D R ISAACSON
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1299 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5637
 HUMAN PERFORMANCE CONSIDERATIONS FOR SHARED INFORMATION IN
 DATALINKED AIR TRAFFIC MANAGEMENT SYSTEM
 03/03/1999 - 02/29/2000 FY99: \$60,000 Total: \$60,000
 Prin. Invest.: R J HANSMAN
 Tech. Officer: ARC/S C LOZITO
 CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 2 1338 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5638
 SOFTWARE DESIGN FOR AIR-TRAFFIC CONTROL
 07/19/1999 - 11/14/1999 FY99: \$33,510 Total: \$33,510
 Prin. Invest.: D N JACKSON, J CHAPIN
 Tech. Officer: ARC/M M ESHOW, ARC/K Y TUNG-CATE
 CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1350 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5639
 EFFECT OF GROWTH STARVATION UNDER SIMULATED MICRO- GRAVITY
 ON THE BACTERIAL STRESS & SECONDARY METAB
 07/21/1999 - 04/14/2000 FY99: \$167,772 Total: \$167,772
 Prin. Invest.: A L DEMAIN
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1375 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5640
 MICROGRAVITY EFFECTS ON SEED DEVELOPMENT AND MATURATION
 08/20/1999 - 12/31/1999 FY99: \$109,980 Total: \$109,980
 Prin. Invest.: M E MUSGRAVE
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1513 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5641
 EFFECTS OF FLOW UNSTEADINESS ON MULTISTAGE COMPRESSOR PERFORMANCE
 08/06/1993 - 11/30/1998 FY99: -\$7,028 Total: \$136,066
 Prin. Invest.: E M GREITZER, F E MARBLE, N A CUMSTY
 Tech. Officer: GRC/A J STRAZISAR
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1640 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5642
 CHEMICAL INHIBITOR EFFECTS ON DIFFUSION FLAMES IN MICROGRAVITY
 06/30/1994 - 03/31/1999 FY99: \$0 Total: \$314,364
 Prin. Invest.: S HOCHGREB, G T LINTERIS
 Tech. Officer: GRC/H ROSS
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 1664 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5643
 CHEMICAL PROCESSES IN THE TURBINE AND EXHAUST NOZZLE
 09/19/1994 - 10/19/1998 FY99: -\$19,687 Total: \$635,970
 Prin. Invest.: I A WALTZ, R C MIAKE-LYE
 Tech. Officer: GRC/L S N, GRC/H L NGUYEN
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 1679 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5644
 DIRECT SIMULATION OF THREE DIMENSIONAL FLUID MECHANICAL PHENOMENA IN INTERNAL FLOWS
 11/09/1994 - 07/31/1998 FY99: -\$53 Total: \$143,874
 Prin. Invest.: C S TAN
 Tech. Officer: GRC/J J ADAMCZYK
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1845 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5645
 DYNAMICS OF THE MOLTEN CONTACT LINE
 05/20/1996 - 05/19/2000 FY99: \$130,000 Total: \$435,000
 Prin. Invest.: A A SONIN
 Tech. Officer: GRC/M M HASAN
 CASE Category: 13 - PHYSICS

NAG 3 1879 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5646
 MODELING OF PULSED PLASMA THRUSTER PLUMES
 05/22/1996 - 05/21/2000 FY99: \$111,000 Total: \$405,000
 Prin. Invest.: J B HOWARD
 Tech. Officer: GRC/J E BROOKER
 CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1937 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5647
 A STUDY OF MICROFABRICATED LIQUID ROCKET MOTORS
 08/05/1996 - 11/30/1999 FY99: \$124,678 Total: \$449,917
 Prin. Invest.: A H EPSTEIN, J L KERREBROCK
 Tech. Officer: GRC/S J SCHNEIDER
 CASE Category: 42 - AERONAUTICAL ENGR

NAG 3 2019 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5648
 A GEOMETRY BASED INFRA-STRUCTURE FOR COMPUTATIONAL ANALYSIS
 03/05/1997 - 02/04/2000 FY99: \$76,675 Total: \$228,794
 Prin. Invest.: R HAIMES
 Tech. Officer: GRC/G J FOLLEN, GRC/C LAWRENCE
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2045 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5649
 MANAGEMENT OF COMPRESSOR TIP CLEARANCE AND CASING TREATMENT FLOWS
 04/30/1997 - 11/30/1998 FY99: -\$1,509 Total: \$120,562
 Prin. Invest.: C S TAN
 Tech. Officer: GRC/M HATHAWAY
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2051 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5650
 THREE DIMENSIONAL AERODYNAMIC INSTABILITIES IN MULTI-STAGE AXIAL COMPRESSORS
 05/27/1997 - 04/21/2000 FY99: \$50,000 Total: \$151,142
 Prin. Invest.: C S TAN
 Tech. Officer: GRC/A K OWEN
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2052 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5651
 IDENTIFICATION AND CONTROL OF ROTATING STALL MODES IN AXIAL COMPRESSORS
 05/27/1997 - 02/07/2000 FY99: \$214,253 Total: \$457,891
 Prin. Invest.: J PADUANO
 Tech. Officer: GRC/M BRIGHT
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2054 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5652
 IMPROVED MECHANISM-BASED LIFE PREDICTION MODELS
 06/06/1997 - 05/31/1999 FY99: \$0 Total: \$100,000
 Prin. Invest.: H L MCMANUS
 Tech. Officer: GRC/K J BOWLES
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2078 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5653
 AERODYNAMICS OF ADVANCED SUBSONIC TRANSPORT INTEGRATED FAN BYPASS DUCT SYSTEM AND ITS DESIGN
 12/18/1997 - 12/07/2000 FY99: \$106,585 Total: \$211,012
 Prin. Invest.: C S TAN
 Tech. Officer: GRC/J J ADAMCZYK
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2101 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5654
 THREE-DIMENSIONAL AERODYNAMIC INSTABILITIES IN MULTI-STAGE AXIAL COMPRESSORS
 12/23/1997 - 11/23/2000 FY99: \$96,646 Total: \$190,268
 Prin. Invest.: C S TAN
 Tech. Officer: GRC/K L SUDER
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2155 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5655
 AN INTEROMETRIC INVESTIGATION OF CONTACT LINE DYNAMICS IN SPREADING POLYMER MELTS AND SOLUTIONS
 04/21/1998 - 01/19/2002 FY99: \$111,999 Total: \$161,999
 Prin. Invest.: G H MCKINLEY, NONE
 Tech. Officer: GRC/N R HALL
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2178 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5656
 INTEGRATED HUMAN CENTERED SYSTEMS ANALYSIS OF FUNCTIONAL REQUIREMENTS FOR COCKPIT ICING INFORMATION
 07/08/1998 - 09/30/1999 FY99: \$62,639 Total: \$82,639
 Prin. Invest.: R J HANSMAN
 Tech. Officer: GRC/A REEHORST
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2179 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5657
 INTRA-ENGINE TRACE SPECIES CHEMISTRY
 06/30/1998 - 06/30/2001 FY99: \$314,768 Total: \$358,749
 Prin. Invest.: L WAITZ
 Tech. Officer: GRC/C C WEY
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2222 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5658
 TRAILING EDGE BLOWING EXPERIMENTS TRAILING EDGE BLOWING EXPERIMENTS
 12/31/1998 - 12/03/1999 FY99: \$72,618 Total: \$72,618
 Prin. Invest.: D A WAITZ
 Tech. Officer: GRC/E B FITE
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 105 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5659
 DEVELOPMENT OF AN UNSTRUCTURED MESH CAPABILITY FOR AERO-ELASTIC COMPUTATIONS ABOUT COMPLETE AIRCRAFT
 02/02/1996 - 10/30/1998 FY99: \$0 Total: \$147,420
 Prin. Invest.: J PERAIRE
 Tech. Officer: DFRC/K GUPTA
 CASE Category: 22 - COMPUTER SCIENCE

NAG 4 120 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5660
 DEVELOPMENT AND TESTING OF AIRFOILS FOR HIGH ALTITUDE AIRCRAFT
 03/18/1997 - 10/31/1998 FY99: -\$46 Total: \$85,806
 Prin. Invest.: M DRELA, NONE
 Tech. Officer: DFRC/D S GREER, DFRC/A BOWERS
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 157 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5661
 DEVELOPMENT OF AN UNSTRUCTURED MESH CODE FOR FLOWS ABOUT COMPLETE VEHICLES
 08/27/1998 - 08/31/1999 FY99: \$40,000 Total: \$54,343
 Prin. Invest.: J PERAIRE
 Tech. Officer: DFRC/K GUPTA
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 584 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5662
 ANALYSIS OF THE SOLAR WIND EXPERIMENT - IMP-8
 10/01/1985 - 03/31/1999 FY99: -\$81 Total: \$1,471,401
Prin. Invest.: A J LAZARUS
Tech. Officer: GSFC/J KING
CASE Category: 11 - ASTRONOMY

NAG 5 2165 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5663
 ACCURATE, SIMULTANEOUS GAMMA RAY BURST POSITION DE TERMINA-
 TION USING THE BURST AND TRANSIENT....
 12/31/1992 - 12/31/1998 FY99: \$0 Total: \$122,000
Prin. Invest.: G R RICKER
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2540 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5664
 SPECTROSCOPIC STUDY OF LMC X-4 ECLIPSE PHENOMENA
 02/28/1994 - 03/14/1999 FY99: -\$28 Total: \$58,972
Prin. Invest.: G W CLARK
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2545 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5665
 IMPROVED PASSIVE MICROWAVE SOUNDING OF THE ATMOSPHERE
 03/09/1994 - 06/14/1998 FY99: \$0 Total: \$544,000
Prin. Invest.: D H STAELIN
Tech. Officer: GSFC/J SHIUE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2632 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5666
 ROSAT STUDIES OF TRANSIENT BINARY X-RAY PULSARS
 06/23/1994 - 12/31/1997 FY99: -\$24 Total: \$19,976
Prin. Invest.: P JOSS
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2685 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5667
 CONTINUATION OF RESEARCH AND IN ORBIT MONITORING OF THE SOLID
 STATE IMAGING SPECTROMETER
 08/11/1998 - 08/14/1998 FY99: \$0 Total: \$1,179,000
Prin. Invest.: G RICKER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2734 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5668
 X-RAY BURST SPECTROSCOPY
 09/21/1994 - 03/31/1999 FY99: \$0 Total: \$85,000
Prin. Invest.: W LEWIS
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2812 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5669
 DIAGNOSIS OF STROTSFERIC TRANSPORT USING MEASUREMENTS OF
 LONG-LIVED TRACERS FROM UARS
 12/07/1994 - 12/14/1997 FY99: -\$9 Total: \$311,901
Prin. Invest.: R A PLUMB
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2816 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5670
 COSMOLOGY AND STRUCTURE FORMATION.
 12/07/1994 - 03/14/1998 FY99: -\$100 Total: \$299,900
Prin. Invest.: E BERTSCHINGER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2907 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5671
 PARTICIPATION IN THE GISS EOS PROPOSAL
 03/14/1995 - 01/14/1998 FY99: -\$311 Total: \$149,689
Prin. Invest.: P STONE
Tech. Officer: GSFC/D RIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2921 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5672
 MEASUREMENT OF MASS DISTRIBUTION IN ABELL CLUSTERS
 03/22/1995 - 09/30/1998 FY99: -\$9 Total: \$46,663
Prin. Invest.: D CANIZARES
Tech. Officer: GSFC/N WHITES
CASE Category: 11 - ASTRONOMY

NAG 5 2928 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5673
 ANALYSIS OF GRAVITY, MAGNETIC, AND SEISMIC REFLECTION DATA
 FROM TIBET AND NEIGHBORING REGIONS ETC.
 04/14/1995 - 09/30/1998 FY99: -\$91,569 Total: \$133,431
Prin. Invest.: M MCNUTT
Tech. Officer: GSFC/P G TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3109 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5674
 ALL - SKY STUDIES OF ACCRETION - POWERED PULSARS
 10/26/1995 - 06/30/1999 FY99: \$0 Total: \$153,179
Prin. Invest.: H BRADT, D CHAKRABARTY
Tech. Officer: GSFC/J NORRIS, GSFC/N GEHRELS
CASE Category: 11 - ASTRONOMY

NAG 5 3206 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5675
 MONITORING THE CENTER OF M31
 04/17/1996 - 10/31/1997 FY99: -\$73 Total: \$11,437
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/R PETRE
CASE Category: 13 - PHYSICS

NAG 5 3236 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5676
 A SEARCH FOR PULSATIONS FROM BE/X-RAY BINARIES
 05/22/1996 - 11/30/1997 FY99: -\$72 Total: \$19,951
Prin. Invest.: J RAPPAPORT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3241 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5677
 SEARCH FOR A PULSAR IN SN 1978 K
 05/22/1996 - 12/14/1998 FY99: -\$95 Total: \$27,720
Prin. Invest.: J RAPPAPORT
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3266 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5678
 STUDY OF VERY RAPID PHENOMENA IN SCO X-1; RELATION BETWEEN
 LOW-FREQUENCY NOISE AND MILLISECOND VARIATION
 07/01/1996 - 12/31/1997 FY99: -\$43 Total: \$23,091
Prin. Invest.: W LEWIS
Tech. Officer: GSFC/J SWANK
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3267 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5679
 STUDY OF VERY RAPID PHENOMENA IN SCO X-1
 07/01/1996 - 12/31/1997 FY99: -\$54 Total: \$5,041
Prin. Invest.: E MORGAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3268 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5680
 PULSE TIMING OF THE LOW-MASS X-RAY BINARY PULSAR 4 U1626-67
 07/01/1996 - 12/31/1998 FY99: -\$48 Total: \$19,640
Prin. Invest.: A LEVINE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3281 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5681
 TIMING AND SPECTRAL STUDY OF LMC X-4
 07/01/1996 - 09/30/1999 FY99: \$0 Total: \$17,800
Prin. Invest.: G CLARK
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3290 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5682
 MECHANICS OF LITHOSPHERE DEFORMATION
 08/08/1996 - 03/14/1998 FY99: \$0 Total: \$75,390
Prin. Invest.: M T ZUBER
Tech. Officer: GSFC/D E SMITH
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3314 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5683
 A SEARCH FOR MICROSECOND VARIABILITY FROM BRIGHT GALACTIC
 X-RAY SOURCES
 08/07/1996 - 02/14/1999 FY99: \$0 Total: \$6,849
Prin. Invest.: E MORGAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3550 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5684
 ASSESSMENT OF GEOPHYSICAL SIGNALS IN GLOBAL GEODETIC DATA
 12/14/1996 - 11/30/1999 FY99: \$133,160 Total: \$399,480
Prin. Invest.: D HERRING
Tech. Officer: GSFC/P TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3555 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5685
 A SEARCH FOR HOT GAS IN MERGING CLUSTERS
 01/22/1997 - 09/30/1999 FY99: \$0 Total: \$10,000
Prin. Invest.: D DAVIS
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3558 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5686
 ACCRETING BLACK HOLES - AN ALL OUT EFFORT
 12/14/1996 - 12/14/1999 FY99: \$33,333 Total: \$80,003
Prin. Invest.: W H LEWIN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3592 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5687
 COSMOLOGICAL APPLICATIONS OF GRAVITATIONAL LENSING
 12/11/1996 - 12/14/1997 FY99: -\$4 Total: \$28,449
Prin. Invest.: J HEWITT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3594 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5688
 A SEARCH FOR PULSARS IN THE LMC
 12/13/1996 - 12/31/1997 FY99: -\$19 Total: \$10,581
Prin. Invest.: S RAPPAPORT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3597 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5689
 A SEARCH FOR EGRET/RADIO PULSARS IN THE ETA CARINA REGION
 01/22/1997 - 09/30/1999 FY99: \$0 Total: \$16,536
Prin. Invest.: V KASPI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3680 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5690
 ECLIPSE MAPPING OF THE HIGH ENERGY RADIATION FROM SCO 1994
 01/11/1997 - 01/14/1998 FY99: -\$191 Total: \$9,915
Prin. Invest.: R REMILLARD, NONE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3683 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5691
 GAMMA RAY OBSERV OF PSR B1055-52 & OTHER SELECTED RCH FOR
 EGRET/RADIO PULSARS IN THE ETA CARINA REGION
 01/08/1997 - 01/14/1999 FY99: -\$50 Total: \$46,507
Prin. Invest.: V KASPI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3724 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5692
 DETERMINATION OF THE GENERAL CIRCULATION OF THE GEODID SAT-
 ELLITE ALTIMETRY
 02/12/1997 - 11/30/1998 FY99: \$0 Total: \$468,000
Prin. Invest.: C I WUNSCH
Tech. Officer: GSFC/B C DOUGLAS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 3726 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5693
 AMAZON DEFORESTATION & REGIONAL CLIMATE
 02/12/1997 - 02/14/2000 FY99: \$108,000 Total: \$317,531
Prin. Invest.: R L BRAS
Tech. Officer: GSFC/R KAKAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3727 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5694
 DEVELOPMENT OF OLIGONUCLEOTIDE PROBES TO STUDY THE PROCHLO-
 ROCOCUS STRAINS WITH DIFFERING PHOTOSYNTH
 02/20/1997 - 02/14/2000 FY99: \$54,037 Total: \$162,249
Prin. Invest.: S W CHISHOLM
Tech. Officer: GSFC/J A YODER
CASE Category: 33 - OCEANOGRAPHY

NAG 5 3793 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5695
 LARGE-SCALE STRATOSPHERIC TRANSPORT PROCESSES
 03/11/1997 - 02/28/1998 FY99: -\$51 Total: \$141,369
Prin. Invest.: R A PLUMB
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3804 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5696
 SEARCH FOR UNTRIGGERED EVENTS IN THE BATSE DATA BA STUDY OF
 GRO J1744-28 USING THE BATSE DATA BASE \$
 12/11/1996 - 12/14/1998 FY99: -\$222 Total: \$48,778
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3915 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5697
 SOLAR SYSTEM DYNAMICS
 02/21/1997 - 09/30/1999 FY99: \$120,000 Total: \$379,900
Prin. Invest.: J WISDOM
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3939 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5698
 SMALL MAIN-BELT SPECTROSCOPIC SURVEY
 02/12/1997 - 12/31/2001 FY99: \$160,000 Total: \$420,000
Prin. Invest.: D P BINZEL
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 3940 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5699
 STELLAR OCCULTATION STUDIES OF PLUTO, TRITON
 02/12/1997 - 11/30/1999 FY99: \$129,650 Total: \$372,320
Prin. Invest.: D L ELLIOT
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 3947 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5700
 FLOW TUBE STUDIES OF GAS PHASE CHEMICAL PROCESSES IMPOR-
 TANCE
 02/21/1997 - 12/31/1999 FY99: \$199,828 Total: \$599,878
Prin. Invest.: M J MOLINA
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3974 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5701
 ADVANCED GLOBAL ATMOSPHERIC GASES EXPERIMENT (AGAG
 02/26/1997 - 01/31/2000 FY99: \$410,480 Total: \$1,344,587
Prin. Invest.: R G PRINN
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3977 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5702
 COLLISION PROCESSES INVOLVING ATMOSPHERIC FREE RAD INFRARED
 ABSORBERS
 02/26/1997 - 03/31/2000 FY99: \$65,477 Total: \$213,028
Prin. Invest.: P STEINFELD
Tech. Officer: GSFC/P L DECOLA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4014 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5703
 A TEST SPIN-ORBIT COUPLING IN THE 4U0115+63 SYSTEM
 03/03/1997 - 02/28/1999 FY99: -\$89 Total: \$2,911
Prin. Invest.: V KASPI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4047 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5704
 INVESTIGATION OF VENUS SURFACE PROPERTIES
 03/10/1997 - 12/31/1999 FY99: \$55,000 Total: \$165,000
Prin. Invest.: D G FORD
Tech. Officer: GSFC/J G GRANT
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4057 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5705
 THEORETICAL STUDIES OF BINARY SYSTEMS CONTAINING C
 03/19/1997 - 03/14/2000 FY99: \$0 Total: \$96,588
Prin. Invest.: S A RAPPAPORT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4114 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5706
 LONG-TERM MONITORING OF PERSISTENT ACCRETION-POWER
 04/17/1997 - 04/14/2000 FY99: \$0 Total: \$25,048
Prin. Invest.: D CHAKRAGARTY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4115 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5707
 RXTE SEARCH FOR THE CENTRIFUGAL BARRIER IN TRANSIE
 04/17/1997 - 04/14/2000 FY99: \$0 Total: \$25,842
Prin. Invest.: S RAPPAPORT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4135 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5708
 FAST SPECTROSCOPY OF Z SOURCES
 03/17/1997 - 03/14/1998 FY99: -\$89 Total: \$7,911
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4136 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5709
 THE 63 MS PULSAR PSR J1105-6107
 03/17/1997 - 03/14/1999 FY99: \$0 Total: \$35,348
Prin. Invest.: V KASPI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 4360 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5710
 CORRELATIONS OF SOLAR WIND DATA FROM INTERBALL, IM
 04/11/1997 - 04/14/1999 FY99: -\$209 Total: \$49,791
Prin. Invest.: M I PAULARENA
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4400 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5711
 X-RAY, OPTICAL REVERBERATION STUDY OF NEARBY BROAD
 04/16/1997 - 04/14/1999 FY99: \$0 Total: \$10,106
Prin. Invest.: R A REMILARD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4434 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5712
 RESEARCH PARTICIPATION IN THE MARS ORBITING LASER
 04/28/1997 - 12/31/1999 FY99: \$47,496 Total: \$254,911
Prin. Invest.: G H PETTENGILL
Tech. Officer: GSFC/D E SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4485 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5713
 TIMING AND SPECTRAL STUDY OF 4U 1538-52
 05/06/1997 - 04/30/2000 FY99: \$0 Total: \$20,130
Prin. Invest.: G CLARK
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4486 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5714
 LUMINOSITY DEPENDENCE OF THE X-RAY SPECTRA AND VAR SOURCES
 05/08/1997 - 04/30/2000 FY99: \$0 Total: \$16,000
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4555 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5715
 PLANETARY TECTONICS AND VOLCANISM
 06/23/1997 - 03/31/2000 FY99: \$142,000 Total: \$510,383
Prin. Invest.: D R ZUBER
Tech. Officer: GSFC/H BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4636 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5716
 OBSERVATIONS OF THE RAPID BURSTER IN OUTBURST (CYC OBSERVA-
 TIONS OF THE RAPIDBURSTER IN OUTBURST (CY
 06/06/1997 - 05/31/1999 FY99: -\$11 Total: \$26,004
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4655 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5717
 ON THE APPLICATION OF THE ADJOINT METHOD TO THE CM
 05/27/1997 - 05/31/1998 FY99: \$0 Total: \$123,000
Prin. Invest.: P W RIZZOLI
Tech. Officer: GSFC/B C DOUGLAS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4733 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5718
 FAST TIMING AND SPECTROSCOPY OF Z SOURCES
 06/04/1997 - 06/30/2000 FY99: \$0 Total: \$30,000
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4768 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5719
 PHASE EQUILIBRIUM INVESTIGATIONS OF PLANETARY MATE
 06/09/1997 - 06/30/2000 FY99: \$100,000 Total: \$180,000
Prin. Invest.: P L GROVE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4778 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5720
 RAINFALL-LIGHTNING RELATIONSHIPS ON A GLOBAL BASIS
 06/18/1997 - 05/31/2000 FY99: \$60,000 Total: \$358,744
Prin. Invest.: E R WILLIAMS
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4805 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5721
 ORBITAL-PHASE-RESOLVED STUDY OF OAO 1657-415 IN SP
 08/01/1997 - 07/31/2000 FY99: \$0 Total: \$16,173
Prin. Invest.: D CHAKRABARTY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4806 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5722
 MARS OBSERVER LASER ALTIMETER
 08/01/1997 - 07/31/2000 FY99: \$234,695 Total: \$725,823
Prin. Invest.: M ZUBER
Tech. Officer: GSFC/D SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4807 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5723
 GPS MEASUREMENTS OF LOCALIZED INTRACONTINENTAL DEF HAN
 08/01/1997 - 07/31/2000 FY99: \$24,000 Total: \$148,000
Prin. Invest.: P MOLNAR
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4833 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5724
 INVESTIGATIONS OF THE INTERPLANETARY MEDIUM
 06/17/1997 - 11/30/1997 FY99: -\$196 Total: \$59,804
Prin. Invest.: D J LAZARUS
Tech. Officer: GSFC/M A FORMAN
CASE Category: 11 - ASTRONOMY

NAG 5 4870 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5725
 X-RAY, OPTICAL REVERBERATION STUDY OF 3C120
 06/26/1997 - 06/30/1999 FY99: \$0 Total: \$13,483
Prin. Invest.: R A REMILLARD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4879 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5726
 XTE OBSERVATIONS OF PSR1259-63 NEAR APASTRON
 07/15/1997 - 07/14/2000 FY99: \$0 Total: \$3,000
Prin. Invest.: V KASPI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4880 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5727
 THE FACTORS CONTROLLING POLEWARD HEAT TRANSPORT IN
 07/15/1997 - 04/30/2000 FY99: \$37,000 Total: \$140,640
Prin. Invest.: P H STONE
Tech. Officer: GSFC/A HOU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4905 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5728
 A COUPLED REMOTE SENSING & MODELING APPROACH TO ES MOISTURE
 & TEMPERATURE IN THE LAND BIOSPHERE SYST
 06/19/1997 - 03/31/1999 FY99: \$0 Total: \$58,919
Prin. Invest.: D ENTEKHABI
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4928 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5729
 DATA-DRIVEN MODELS TO DESCRIBE ASTONAUT PERFORMAN FULL-
 BODY DYNAMICS AND POSTURAL CONTROL
 06/23/1997 - 12/31/1998 FY99: -\$66 Total: \$101,617
Prin. Invest.: D J NEWMAN
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4959 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5730
 ASCA STUDIES OF THE NEAREST REGION OF STAR FORMATI
 06/27/1997 - 06/30/1999 FY99: \$0 Total: \$20,100
Prin. Invest.: J KASTNER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 4989 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5731
 CENTER FOR QUANTITATIVE CARDIOVASCULAR PHYSIOLOGY, ANALYSIS
 06/27/1997 - 11/30/1999 FY99: \$0 Total: \$375,000
Prin. Invest.: R COHEN
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 5105 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5732
 A THREE-YEAR PROGRAM OF MICRO AND NANO SYSTEM TECHNOLOGY
 DEVELOPMENT FOR X-RAY ASTRONOMY
 01/17/1997 - 01/31/2000 FY99: \$310,000 Total: \$915,000
Prin. Invest.: C R CANIZARES
Tech. Officer: GSFC/B FLOWERS
CASE Category: 13 - PHYSICS

NAG 5 6062 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5733
 RECENT AND ACTIVE EVOLUTION OF THE EASTERN TIBETAN IPLINARY
 STUDY
 07/28/1997 - 07/14/2000 FY99: \$19,000 Total: \$120,577
Prin. Invest.: B FIELD
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6063 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5734
 VERTICAL ACCURACY IMPROVEMENT FOR VLBI AND GPS
 08/01/1997 - 07/14/2000 FY99: \$34,000 Total: \$216,990
Prin. Invest.: A NIELL
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6079 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5735
 FUNDING FOR MIT PROPOSAL ENTITLED "STRUCTURAL DYNA ANALYSES
 AND SIMULATIONS FOR NASA'S NGST" PROPOSA
 09/11/1997 - 12/31/1998 FY99: -\$2,345 Total: \$55,027
Prin. Invest.: D MILLER
Tech. Officer: HQ/W HAYDEN
CASE Category: 46 - MECHANICAL ENGR

NAG 5 6129 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5736
 MODELING THE EXTENDED NEUTRAL ATMOSPHERE AND PLASM SATURN
 08/04/1997 - 07/14/2000 FY99: \$61,691 Total: \$136,270
Prin. Invest.: D RICHARDSON
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6145 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5737
 CRUSTAL DEFORMATION AND EARTHQUAKE HAZARDS IN THE REGION
 08/21/1997 - 08/31/2000 FY99: \$25,000 Total: \$275,000
Prin. Invest.: R E REILINGER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6224 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5738
 ESTIMATION OF THE CIRCULATION OF THE PACIFIC OCEAN ALTIMETRIC
 DATA WITH A GENERAL CIRCULATION MODEL
 08/21/1997 - 08/31/1999 FY99: \$0 Total: \$201,400
Prin. Invest.: P WUNSCH
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6304 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5739
 GLOBAL SCALE CIRCULATION PROCESSES
 10/10/1997 - 12/31/1999 FY99: \$38,000 Total: \$204,000
Prin. Invest.: D S LINDZEN
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6333 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5740
 MONITORING THE BLACK HOLE CANDIDATE GRS1915+105
 10/02/1997 - 09/30/1999 FY99: \$0 Total: \$16,317
Prin. Invest.: E MORGAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 6352 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5741
 SURFACE DEFORMATION AND GRAVITY CHANGES FROM SURFA LOADS
 09/26/1997 - 09/14/2000 FY99: \$30,000 Total: \$230,000
Prin. Invest.: B HAGER
Tech. Officer: GSFC/E J LINSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6370 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5742
 MICROMACHINED MILLIMETER AND SUBMILLIMETER-WAVE SI FOR
 REMOTE SENSING
 09/25/1997 - 07/31/1998 FY99: \$0 Total: \$100,000
Prin. Invest.: D HU
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6390 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5743
 USING DATA ASSIMILATION TO INFER SOIL MOISTURE FROM REMOTELY
 SENSED MEASUREMENTS: A FEASIBILITY STUDY
 10/17/1997 - 08/31/1998 FY99: \$0 Total: \$120,475
Prin. Invest.: D MCLAUGHLIN
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6394 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5744
 MUTUAL INTERACTION OF SOIL MOISTURE AND CLIMATE DYNAMICS
 10/17/1997 - 09/30/1999 FY99: \$0 Total: \$100,000
Prin. Invest.: D ENTEKHABI
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6441 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5745
 EXTENSIONS AND TESTING OF LANDSURFACE HYDROLOGIC P ARAME-
 TERIZATIONS IN THEGISS GCM
 11/13/1997 - 09/30/1999 FY99: \$0 Total: \$114,137
Prin. Invest.: D ENTEKHABI
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6473 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5746
 SHOCK EVOLUTION IN THE OUTER HELIOSPHERE
 11/13/1997 - 10/31/1999 FY99: \$49,628 Total: \$98,654
Prin. Invest.: K PAULARENA
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6523 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5747
 STUDIES OF TECHNIQUES FOR THE DETECTION OF PLANETS OF OTHER
 SOLAR SYSTEMS
 12/16/1997 - 06/30/2000 FY99: \$0 Total: \$45,000
Prin. Invest.: B BURKE
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAG 5 6592 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5748
 ON THE SPACE-TIME ORGANIZATION OF SOIL MOISTURE FIELDS: DYNAM-
 ICS AND INTERACTION WITH THE ATMOSP
 11/07/1997 - 08/31/1999 FY99: \$0 Total: \$45,000
Prin. Invest.: D ENTEKHABI
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6594 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5749
 DEVELOPMENT OF AN INTEGRATED GEOSCIENCE REMOTE SENSING AND
 GISLABORATORY
 12/06/1997 - 10/31/1998 FY99: \$0 Total: \$99,217
Prin. Invest.: C BURCHFEL
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6600 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5750
 MIT/CAVS PROGRAM OF CREATIVE VISUALIZATION FOR OCEAN DATA
 12/08/1997 - 11/14/1999 FY99: \$21,000 Total: \$89,975
Prin. Invest.: S BENTON, NONE
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6710 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5751
 PHYSICAL MECHANISMS CONTROLLING UPPER TROPOSPHERIC WATER
 VAPOR AS REVEALED BY MLS DATA FROM U
 12/17/1997 - 11/30/1999 FY99: \$94,000 Total: \$194,000
Prin. Invest.: D NEWELL, NONE
Tech. Officer: GSFC/A DOUGLASS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6722 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5752
 EARLY PRECAMBRIAN CARBONATE AND EVAPORITE SEDIMENT S:
 CONSTRAINTS ON ENVIRONMENTAL AND BIOLOGICAL
 12/16/1997 - 09/30/2000 FY99: \$116,833 Total: \$233,666
Prin. Invest.: J GROTZINGER
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 7012 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5753
 JETS IN AGN: NUMERICAL SIMULATIONS IN RELATIVISTIC MHD - ATP
 02/19/1998 - 02/29/2000 FY99: \$62,685 Total: \$121,685
Prin. Invest.: M H VAN PUTTEN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7028 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5754
 SAX PROPOSALS - STUDY OF GRO J1744-28 IN QUIESCENT AND-
 TOO OBSERVATIONS OF AN OUTB
 02/20/1998 - 02/28/1999 FY99: -\$26 Total: \$6,974
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 7131 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5755
 XTE PROPOSAL - RXTE OBSERVATIONS OF THE RADIO PULSAR PSR
 J1105-6107
 03/02/1998 - 02/28/1999 FY99: -\$72 Total: \$15,678
Prin. Invest.: V KASPI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7162 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5756
 ESTIMATING THE OCEAN FLOW FIELD FROM COMBINED SEA SURFACE
 TEMPERATURE AND SEA SURFACE HEIGHT DATA
 04/17/1998 - 02/28/2000 FY99: \$125,000 Total: \$273,020
Prin. Invest.: D STAMMER
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7194 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5757
 ATLANTIC OCEAN PROCESSES FROM SUBPOLAR REGIONS TO THE
 SOUTHERN SUBTROPICAL GYRE: MODEL/DATA COMPAR
 03/26/1998 - 12/31/1999 FY99: \$133,000 Total: \$272,680
Prin. Invest.: P RIZZOLI
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7204 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5758
 PARTICIPATION IN THE GISS EOS PROPOSAL
 03/25/1998 - 01/14/2000 FY99: \$50,000 Total: \$100,000
Prin. Invest.: P H STONE
Tech. Officer: GSFC/D RIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7242 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5759
 XTE PROPOSAL - CHARACTERIZING THE LOW STATE OF GRS 1737-31, A
 NEW BLACK HOLE CANDIDATE
 04/15/1998 - 04/14/2000 FY99: \$0 Total: \$5,050
Prin. Invest.: W CUI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7279 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5760
 XTE PROPOSAL - DOES PRECESSION OF THE ACCRETION DISK OF SMC
 X-1 CAUSE A VARIATION IN THE PULSE PER
 04/15/1998 - 04/14/2000 FY99: \$0 Total: \$10,125
Prin. Invest.: G W CLARK
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7281 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5761
 XTE PROPOSAL - A COORDINATED RXTE/ASCA STUDY OF AB SORPTION
 DIPS IN CIRCUIT X-1 AT PHASE ZERO
 04/15/1998 - 04/14/2000 FY99: \$0 Total: \$5,998
Prin. Invest.: H V BRADT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7328 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5762
 XTE PROPOSAL - SIMULTANEOUS X-RAY/ULTRAVIOLET TIMING OF 4U
 1626-67
 04/24/1998 - 04/30/2000 FY99: \$0 Total: \$8,733
Prin. Invest.: D CHAKRABARTY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7336 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5763
 XTE PROPOSAL - STUDY OF KHZ QPO IN Z SOURCES
 04/24/1998 - 04/30/2000 FY99: \$0 Total: \$4,876
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7337 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5764
 XTE PROPOSAL - MONITORING OBSERVATIONS OF GRO J1744-28
 04/24/1998 - 04/30/1999 FY99: \$0 Total: \$4,375
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7344 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5765
 XTE PROPOSAL (30165) - THE DIFFERENT STATES OF GX 339-4
 06/01/1998 - 05/31/2000 FY99: \$0 Total: \$5,500
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7359 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5766
 MO & DA ON THE SWIE INSTRUMENT ON THE WIND SPACECRAFT
 05/05/1998 - 05/14/2000 FY99: \$190,000 Total: \$382,000
Prin. Invest.: A LARARUS
Tech. Officer: GSFC/K OGILVIE
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NAG 5 7374 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5767
 XTE PROPOSAL - TEMPORAL AND SPECTRAL PROPERTIES OF KS
 1731-260
 05/12/1998 - 05/31/2000 FY99: \$0 Total: \$7,127
Prin. Invest.: E H MORGAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7375 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5768
 XTE PROPOSAL - SPECTRAL AND TIMING INVESTIGATIONS OF DWARF
 NOVAE SELECTED IN HARD X-RAYS
 05/12/1998 - 05/31/2000 FY99: \$0 Total: \$6,746
Prin. Invest.: R A REMILLARD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7408 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5769
 XTE PROPOSAL (30071) - OBSERVATIONS OF BLACK-HOLE X-RAY BINA-
 RIES IN OUTBURST
 05/28/1998 - 05/31/2000 FY99: \$0 Total: \$7,005
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7424 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5770
 XTE PROPOSAL (30705) - SNAPSHOTS OF NEW ASM/BATSE TRANSIENT
 SOURCES WITH RXTE
 05/27/1998 - 05/31/2000 FY99: \$0 Total: \$5,959
Prin. Invest.: W CUI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7475 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5771
 THE VALUE OF DISTRIBUTED MODELING TO FLOOD FORECASTING
 06/18/1998 - 08/31/2001 FY99: \$0 Total: \$382,143
Prin. Invest.: R BRASS
Tech. Officer: GSFC/E ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7476 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5772
 XTE PROPOSAL (30078) - RXTE OBSERVATIONS OF THE RAPID BURSTER
 IN OUTBURST
 06/01/1998 - 05/31/2000 FY99: \$0 Total: \$8,751
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7479 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5773
 XTE PROPOSAL (30099) - ORBITAL DETERMINATION OF X PERSEI
 06/01/1998 - 05/31/1999 FY99: -\$98 Total: \$10,375
Prin. Invest.: S A RAPPAPORT, NONE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7480 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5774
 XTE PROPOSAL (30269) - BL LACS IN X-RAY OUTBURST
 06/01/1998 - 05/31/2000 FY99: \$0 Total: \$6,012
Prin. Invest.: R A REMILLARD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7481 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5775
 XTE PROPOSAL (30079) - SIMULTANEOUS RXTE AND RADIO OBSERVA-
 TIONS OF THE RAPID BURSTER IN OUTBURST
 06/01/1998 - 05/31/2000 FY99: \$0 Total: \$5,000
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7484 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5776
 XTE PROPOSAL (30188) - MAPPING THE RISING PHASE OF X-RAY OUT-
 BURSTS IN SOFT X-RAY TRANSIENTS
 06/01/1998 - 05/31/2000 FY99: \$0 Total: \$6,467
Prin. Invest.: W CUI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7487 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5777
 THIS PR PROVIDES FUNDING TO A MIT GRANT ON "PASSIV E MICROWAVE
 STUDIES OF ATMOSPHERIC PRECIPITATION A
 06/05/1998 - 06/14/2000 FY99: \$120,000 Total: \$240,000
 Prin. Invest.: D STAELIN
 Tech. Officer: GSFC/J C SHIUE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7517 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5778
 XTE PROPOSAL (30137) TARGET OF OPPORTUNITY POSITIO NING OF
 TRANSIENT X-RAY PULSARS
 06/04/1998 - 06/14/2000 FY99: \$0 Total: \$6,815
 Prin. Invest.: D CHAKRABARTY
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7525 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5779
 USE OF SATELLITE REMOTE SENSING TO STUDY THE ROLE OF RAINFO-
 RESTS IN TROPICAL CLIMATE
 06/08/1998 - 12/31/1999 FY99: \$0 Total: \$112,000
 Prin. Invest.: E ELTAHIR
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7794 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5780
 INTERCALIBRATION AND CROSS-CORRELATION OF ACE AND WIND SOLAR
 WIND DATA
 12/10/1998 - 09/30/1999 FY99: \$65,668 Total: \$65,668
 Prin. Invest.: D J LAZARUS
 Tech. Officer: GSFC/D C LING
 CASE Category: 11 - ASTRONOMY

NAG 5 7806 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5781
 STUDY OF TEMPORAL AND SPECTRAL VARIABILITY OF BLACK-HOLE CAN-
 DIDATES WITH BATSE
 11/10/1998 - 12/14/1999 FY99: \$5,002 Total: \$5,002
 Prin. Invest.: W LEWIN
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7807 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5782
 SEARCH FOR UNTRIGGERED EVENTS IN THE BATSE DATA BASE
 11/10/1998 - 12/14/1999 FY99: \$4,998 Total: \$4,998
 Prin. Invest.: W LEWIN
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7839 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5783
 STRUCTURAL DYNAMICS & CONTROLS ANALYSES, SIMULATIONS, AND
 TESTBEDS FOR THE NEXT GENERATION SPACE T
 12/16/1998 - 12/14/1999 FY99: \$150,928 Total: \$150,928
 Prin. Invest.: D W MILLER
 Tech. Officer: GSFC/G MOSIER
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 7857 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5784
 A SYNTHESIS OF THE GLOBAL WOECE OBSERVATIONS OF THE OCEANIC
 CIRCULATION
 12/10/1998 - 11/30/1999 FY99: \$250,000 Total: \$250,000
 Prin. Invest.: C WUNSCH
 Tech. Officer: GSFC/E LINDSTROM
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7967 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5785
 A SEARCH FOR THE SOLAR SOURCES OF HIGH-SPEED SOLAR WIND
 STREAMS
 01/15/1999 - 12/14/1999 FY99: \$93,503 Total: \$93,503
 Prin. Invest.: D J LAZARUS
 Tech. Officer: GSFC/D C LING
 CASE Category: 11 - ASTRONOMY

NAG 5 7990 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5786
 RELATIVISTIC ASTROPHYSICS IN BLACK HOLE AND LOW-MA SS NEUTRON
 STAR X-RAY BINARIES - LTSA98
 01/22/1999 - 01/31/2000 FY99: \$13,696 Total: \$13,696
 Prin. Invest.: W CUI
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8008 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5787
 STABILITY OF TRITON'S ALBEDO FROM 1985 THROUGH 1997: IMPLICA-
 TIONS FOR THE ATMOSPHERE
 01/06/1999 - 07/31/1999 FY99: \$1,969 Total: \$1,969
 Prin. Invest.: H B HAMMEL
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 8031 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5788
 REDUCTION AND SCIENTIFIC ANALYSIS OF DATA FROM IMP -8
 01/19/1999 - 12/31/1999 FY99: \$90,188 Total: \$90,188
 Prin. Invest.: A J LAZARUS
 Tech. Officer: GSFC/J KING
 CASE Category: 11 - ASTRONOMY

NAG 5 8045 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5789
 SCIENTIFIC ANALYSIS OF DATA FOR THE ISTP/SOLAR MAX PROGRAM
 01/11/1999 - 01/14/2000 FY99: \$59,954 Total: \$59,954
 Prin. Invest.: A J LAZARUS
 Tech. Officer: GSFC/M H ACUNA
 CASE Category: 13 - PHYSICS

NAG 5 8063 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5790
 PULSAR WIND NEBULAE, SPACE VELOCITIES, & SUPERNOVA REMNANT
 ASSOCIATIONS LTSA 98
 01/13/1999 - 01/14/2000 FY99: \$48,000 Total: \$48,000
 Prin. Invest.: V M KASPI
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8224 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5791
 "THEORY AND MODELING OF STRATOSPHERIC AGE DISTRIBUTIONS"
 02/10/1999 - 02/14/2000 FY99: \$73,316 Total: \$73,316
 Prin. Invest.: R PLUMB
 Tech. Officer: GSFC/R W STEWART
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8243 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5792
 XTE PROPOSAL - QPO AND SPECTRAL STUDIES OF "NEW" STATES OF
 CIRCINUSX-1
 02/10/1999 - 02/14/2000 FY99: \$8,546 Total: \$8,546
 Prin. Invest.: H V BRADT
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8244 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5793
 SEARCH FOR ORBITAL DECAY IN LMC X-4
 02/10/1999 - 02/14/2000 FY99: \$10,642 Total: \$10,642
 Prin. Invest.: S A RAPPAPORT
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8368 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5794
 FORMATION AND EVOLUTION OF BINARY SYSTEMS CONTAINING COL-
 LAPSED STARS(ATP 98)
 03/01/1999 - 04/30/2000 FY99: \$55,000 Total: \$55,000
 Prin. Invest.: S A RAPPAPORT
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8460 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5795
 THEORETICAL STUDIES OF BINARY SYSTEMS CONTAINING COLLAPSED
 STARS
 04/16/1999 - 04/14/2000 FY99: \$80,205 Total: \$80,205
 Prin. Invest.: F A RASIO
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8617 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5796
 TWO-WAY BIOSPHERE-ATMOSPHERE INTERACTIONS: THEIR IMPLICA-
 TIONS FOR SATELLITE OBSERVATIONS OF REGIONAL
 06/14/1999 - 06/30/2000 FY99: \$50,250 Total: \$50,250
 Prin. Invest.: E B ELTAHIR
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8668 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5797
 DIRECT DEPOSITION OF OPTICAL BLOCKING FILTERS ON CCD X-RAY
 DETECTORS
 07/07/1999 - 09/30/2000 FY99: \$172,793 Total: \$172,793
 Prin. Invest.: M W BAUTZ
 Tech. Officer: GSFC/G MUCKLOW
 CASE Category: 11 - ASTRONOMY

NAG 5 8707 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5798
 IMPLICATIONS OF LUNAR PROSPECTOR DATA FOR LUNAR GEOPHYSICS
 07/20/1999 - 07/31/2000 FY99: \$45,000 Total: \$45,000
 Prin. Invest.: M T ZUBER
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8720 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5799
 INVESTIGATION OF SOLAR WIND CORRELATIONS & MODIFI- CATIONS
 NEAR EARTH USING MULTI-SPACECRAFT OBSERVA
 08/03/1999 - 07/31/2000 FY99: \$24,000 Total: \$24,000
 Prin. Invest.: K I PAULARENA
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8776 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5800
 RESIN-SPINNING OF SYNTHETIC POLYMER FIBERS WITH SILK-LIKE PROP-
 erties
 08/31/1999 - 08/31/2000 FY99: \$43,750 Total: \$43,750
 Prin. Invest.: G MCKINLEY
 Tech. Officer: GSFC/R CROUCH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8814 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5801
 TEMPO OF THE PERMIAN MASS EXTINCTIONS & RECOVERIES
 09/29/1999 - 09/30/2000 FY99: \$114,000 Total: \$114,000
 Prin. Invest.: S A BOWRING
 Tech. Officer: GSFC/M MEYER
 CASE Category: 11 - ASTRONOMY

NAG 8 1183 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5802
 TEMPUS MICROGRAVITY SCIENCE
 11/09/1995 - 11/05/1999 FY99: \$0 Total: \$664,245
 Prin. Invest.: M FLEMING, G TRAPAGA
 Tech. Officer: MSFC/T DCLOACH
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1230 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5803
 ALLOY UNDER COOLING EXPERIMENTS
 10/25/1995 - 10/23/1999 FY99: \$0 Total: \$607,970
 Prin. Invest.: M FLEMING
 Tech. Officer: GSFC/T DELOACH
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1253 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5804
 RESEARCH "APPLICATION OF PARALLEL COMPUTING FOR TWO AND
 THREE D MODELING OF BULK CRYSTAL GROWTH
 06/24/1996 - 06/30/2000 FY99: \$204,890 Total: \$500,707
 Prin. Invest.: R A BROWN
 Tech. Officer: MSFC/P DOTY, MSFC/R POWER
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1401 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5805
 DEVELOPMENT OF A OPTICAL CHARACTERIZATION FACILITY FOR D-X
 DEFECTS IN BSO
 09/02/1997 - 03/31/1998 FY99: \$0 Total: \$34,859
 Prin. Invest.: A F WHITT
 Tech. Officer: MSFC/DOTY
 CASE Category: 46 - MECHANICAL ENGR

NAG 8 1435 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5806
 TOWARDS PRECISION EXPERIMENTS WITH BOSE-EINSTEIN CONDEN-
 SATES
 02/03/1998 - 01/31/2003 FY99: \$64,000 Total: \$111,000
 Prin. Invest.: W KETTERLE
 Tech. Officer: MSFC/D HUBBARD
 CASE Category: 13 - PHYSICS

NAG 8 1487 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5807
 IDENTIFICATION AND CONTROL OF GRAVITY RELATED DEFECT FORMA-
 TION DURING MELT GROWTH OF ELECTROOPTI
 02/13/1998 - 01/31/2002 FY99: \$151,495 Total: \$247,745
 Prin. Invest.: A WITT
 Tech. Officer: MSFC/M PURVEY
 CASE Category: 47 - METAL & MATERIALS ENGR

NAG 8 1524 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5808
 DIRECT USE OF SATELLITE REMOTE SENSING IN THE ESTIMATION OF
 HYDROLOGIC TRANSPORTS
 05/22/1998 - 08/31/1998 FY99: \$0 Total: \$140,000
Prin. Invest.: D ENTEKHABI
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 836 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5809
 MICROGRAVITY TISSUE ENGINEERING
 09/19/1995 - 08/31/2000 FY99: \$650,000 Total: \$4,371,496
Prin. Invest.: L E FREED
Tech. Officer: JSC/N R PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 1003 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5810
 MICROGRAVITY INVESTIGATION & CREW REACTION IN O-G
 04/29/1998 - 05/14/2001 FY99: \$89,475 Total: \$175,940
Prin. Invest.: D J NEWMAN, S BECK
Tech. Officer: JSC/B WOOLFORD
CASE Category: 56 - MEDICL

NAG 9 1004 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5811
 ADVANCED DISPLAYS & CONTROLS FOR 6 DOF ORIENTATION
 05/06/1998 - 06/09/2001 FY99: \$178,811 Total: \$266,055
Prin. Invest.: C M OMAN
Tech. Officer: JSC/J DETROVE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1078 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5812
 SPACE STTION HUMAN FACTORS
 01/21/1999 - 01/28/2000 FY99: \$23,000 Total: \$23,000
Prin. Invest.: J P CLARKE
Tech. Officer: JSC/H A ALDRIDGE
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 1089 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5813
 ROBOTIC TECHNOLOGY AND FUTURE SPACE SUIT DEVELOPMENT
 03/05/1999 - 02/28/2001 FY99: \$217,097 Total: \$217,097
Prin. Invest.: D J NEWMAN
Tech. Officer: JSC/B J WOOLFORD
CASE Category: 41 - AERONAUTICAL ENGR

NAGW 1335 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5814
 CENTER FOR SPACE ENGINEERING RESEARCH
 08/09/1988 - 09/30/1997 FY99: -\$6,852 Total: \$8,950,343
Prin. Invest.: E F CRAWLEY, E F CRAWLEY
Tech. Officer: HQ/G I JOHNSTON
CASE Category: 49 - ENGINEERING, OTHER

NAGW 1386 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5815
 A STUDY OF INTERFEROMETRIC METHODS FOR THE DETCTRON PLANETS
 08/03/1988 - 01/30/1998 FY99: -\$128 Total: \$604,872
Prin. Invest.: B I BURKE
Tech. Officer: HQ/C PILCHER
CASE Category: 11 - ASTRONOMY

NAGW 2089 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5816
 CONTINUED DEVELOPMENT OF AN EXPLOSIVE TRANSIENT CA MERA FOR
 IDENTIFICATION OF GAMMA RAY BURST SOURCE
 06/06/1990 - 01/30/1998 FY99: \$0 Total: \$1,609,848
Prin. Invest.: G RICKER
Tech. Officer: HQ/L J KALUZIENSKI, HQ/A N BUNNER
CASE Category: 11 - ASTRONOMY

NAGW 4333 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5817
 SPACELAB ROTATING CHAIR EXTENDED DATA ANALYSIS
 03/04/1995 - 01/30/1998 FY99: -\$277 Total: \$138,620
Prin. Invest.: C M OMAN
Tech. Officer: HQ/R J WHITE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4351 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5818
 INVESTIGATION OF VENUS SURFACE ELECTRICAL AND MECHANICAL
 PROPERTIES
 03/15/1995 - 09/30/1997 FY99: -\$257 Total: \$109,743
Prin. Invest.: P FORD
Tech. Officer: HQ/H BRINTON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4763 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5819
 A STUDY OF THE FEASIBILITY OF A GAMMA-RAY BURST ASTROMETRY
 MISSION, THE ENERGETIC TRANSIENT ARRAY
 09/25/1995 - 09/30/1997 FY99: -\$553 Total: \$49,447
Prin. Invest.: G R RICKER
Tech. Officer: HQ/M KAPLAN, HQ/D W WEEDMAN
CASE Category: 13 - PHYSICS

NAGW 5021 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5820
 PLANETARY TECTONICS AND VOLCANISM
 04/03/1996 - 03/31/1998 FY99: -\$223 Total: \$215,577
Prin. Invest.: M T ZUBER
Tech. Officer: HQ/H BRINTON, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAS 1 18690 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5821
 MID-DECK O-GRAVITY DYNAMICS EXPERIMENT
 12/06/1988 - 09/30/1999 FY99: \$8,488 Total: \$6,062,388
Prin. Invest.: E CROWLEY
Tech. Officer: LARC/L G CLARK, LARC/S M BECK
CASE Category: 42 - ASTRONAUTICAL ENGR

NAS 1 99126 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5822
 ASSESSMENT OF A MULTI-LEVEL ERROR ESTIMATION AND ADAPTIVE
 GRID STRATEGY FOR AERODYNAMIC APPLICAT
 07/16/1999 - 02/15/2000 FY99: \$45,945 Total: \$45,945
Prin. Invest.: D L DARMOFAL
Tech. Officer: LARC/J L THOMAS
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAS 5 30612 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5823
 ALL SKY MONITOR INSTRUMENTS
 12/15/1989 - 10/31/1999 FY99: \$707,236 Total: \$25,792,767
Prin. Invest.: H BRADT
Tech. Officer: GSFC/W DAVIS
CASE Category: 11 - ASTRONOMY

NAS 5 31376 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5824
 RECURSIVE ESTIMATION OF GEOGRAPHICAL PRODUCTS WITH AIRS/AMSU
 DATA (EOS INVESTIGATION)
 01/10/1992 - 12/14/2001 FY99: \$300,000 Total: \$1,433,000
Prin. Invest.: D H STACLIN, P W ROSENKRANZ
Tech. Officer: GSFC/E KREINS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 5 31721 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5825
 EOS INVESTIGATION "GLOBAL HYDROLOGIC PROCESSES CLIMATE"
 09/19/1991 - 08/31/1999 FY99: \$0 Total: \$703,250
Prin. Invest.: P EAGLESON
Tech. Officer: GSFC/W LAU
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 31728 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5826
 ACQUISITION OF VLBI CORRELATOR
 03/19/1992 - 06/19/2000 FY99: \$300,000 Total: \$8,452,661
Prin. Invest.: A R WHITNEY
Tech. Officer: GSFC/B WILDES
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 5 32353 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5827
 MARK III VLBI SUPPORT
 02/08/1994 - 04/22/1999 FY99: \$1,004,260 Total: \$7,010,404
Prin. Invest.: A NEILL
Tech. Officer: GSFC/W WILDES
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 5 32929 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5828
 XRAY CCDFA FOR ASTRO-E
 04/22/1996 - 03/31/2000 FY99: \$1,112,414 Total: \$5,000,457
Prin. Invest.: D RICKER
Tech. Officer: GSFC/J MURPHY
CASE Category: 13 - PHYSICS

NAS 5 33017 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5829
 GLRS SCIENCE TEAM MEMBER STUDY
 09/01/1989 - 10/31/1998 FY99: \$0 Total: \$616,000
Prin. Invest.: T HERRING
Tech. Officer: GSFC/G SOFFEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 99007 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5830
 GLAS SCIENCE TEAM
 12/02/1998 - 12/01/2004 FY99: \$135,000 Total: \$135,000
Prin. Invest.: T A HERRING
Tech. Officer: GSFC/G SMITH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 99181 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5831
 TRIANA FARADAY CUP
 03/17/1999 - 01/01/2001 FY99: \$318,451 Total: \$318,451
Prin. Invest.: A J LAZARUS
Tech. Officer: GSFC/K W OGILVIE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 5 99198 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5832
 PROVIDE PERSONNEL, FACILITIES, & EQUIPMENT NECESSARY TO SUPPORT
 THE SPACE GEODESY PROGRAM.
 04/23/1999 - 04/22/2004 FY99: \$230,000 Total: \$230,000
Prin. Invest.: G CARRIGAN
Tech. Officer: GSFC/W WILDES
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 37716 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5833
 CONDUCT AN X-RAY IMAGING SPECTROSCOPY SCIENTIFIC INVESTIGATION
 07/23/1990 - 01/01/2004 FY99: \$4,195,000 Total: \$77,428,000
Prin. Invest.: G RICKER
Tech. Officer: MSFC/N B CUMINGS
CASE Category: 11 - ASTRONOMY

NAS 8 38249 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5834
 AXAF (HETGS)
 07/13/1990 - 04/01/2001 FY99: \$1,304,000 Total: \$25,344,000
Prin. Invest.: C R CANIZARES
Tech. Officer: MSFC/C E WINKLER
CASE Category: 11 - ASTRONOMY

NAS 9 19536 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5835
 ROLE OF VISUAL CUES IN SPATIAL ORIENTATION
 03/19/1996 - 06/30/2000 FY99: \$180,827 Total: \$998,827
Prin. Invest.: C M OMAN
Tech. Officer: SSC/S SAWYER
CASE Category: 56 - MEDICL

NASW 4690 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5836
 HIGH ENERGY TRANSIENT EXPERIMENT TO DETERMINE ORIG IN AND
 NATURE OF GAMMA-RAY BURSTS
 03/30/1992 - 11/01/2001 FY99: \$1,876,204 Total: \$22,272,720
Prin. Invest.: G RICKER
Tech. Officer: HQ/D GILMAN, HQ/L KALUZIENSKI
CASE Category: 13 - PHYSICS

NCC 1 259 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5837
 DEVELOPMENT OF AN ACTIVE TWIST ROTOR FOR WIND-TUNN EL TESTING
 06/11/1997 - 10/31/1998 FY99: -\$1,155 Total: \$118,846
Prin. Invest.: N W HAGOOD, IV
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 323 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5838
 AEROELASTIC ANALYSIS OF ACTIVE TWIST ROTOR SYSTEM FOR HELICOPTER
 VIBRATION REDUCTION
 12/22/1998 - 10/31/2001 FY99: \$108,429 Total: \$108,429
Prin. Invest.: C E CESNIK, N W HAGOOD
Tech. Officer: LARC/P H MIRICK, LARC/W K WILKIE
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 570 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5839
 PRINCIPAL INVESTIGATOR IN A BOX
 12/29/1988 - 06/30/2000 FY99: \$0 Total: \$2,098,309
Prin. Invest.: L R YOUNG
Tech. Officer: ARC/S LAU, ARC/D A ROSENTHAL
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 985 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5840
 AUTOMATED FLUID FEATURE EXTRACTION FROM TRANSIENT SIMULATIONS
 04/01/1997 - 09/30/1999 FY99: \$27,434 Total: \$129,896
 Prin. Invest.: R HAIMES
 Tech. Officer: ARC/D L KAO, ARC/A VAZIRI
 CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1040 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5841
 VERTICAL STRUCTURE OF STOMOSPHERIC SCALERS ON JUPI TER, SATURN & NEPTUNE
 05/15/1998 - 06/30/1999 FY99: \$19,599 Total: \$33,769
 Prin. Invest.: H B HAMMEL
 Tech. Officer: ARC/C P MCKAY
 CASE Category: 11 - ASTRONOMY

NCC 2 1044 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5842
 DRIVING PARAMETERS FOR DISTRIBUTED & CENTRALIZED AIR TRANSPORTATION ARCHITECTURES
 06/24/1998 - 11/30/1999 FY99: \$35,000 Total: \$94,961
 Prin. Invest.: E FERON
 Tech. Officer: ARC/B SRIDHAR, ARC/K BILIMORIA
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 1121 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5843
 MARSCAPE
 05/21/1999 - 05/14/2000 FY99: \$150,000 Total: \$150,000
 Prin. Invest.: J K SALISBURY
 Tech. Officer: ARC/H THOMAS
 CASE Category: 46 - MECHANICAL ENGR

NCC 2 5253 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5844
 RESEARCH ON HELICOPTER BLADE BENDING MEASUREMENT AND CONTROL
 02/06/1998 - 03/31/2000 FY99: \$15,004 Total: \$25,003
 Prin. Invest.: N D HAM
 Tech. Officer: ARC/J W FLETCHER, ARC/M B TISCHLER
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 265 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5845
 MIT ENGINEERING INTERSHIP PROGRAM
 05/20/1992 - 05/31/1998 FY99: -\$9,744 Total: \$257,234
 Prin. Invest.: J L KERREBROCK
 Tech. Officer: GRC/S A APP
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 414 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5846
 LOBED MIXER OPTIMIZATION FOR ADVANCED EJECTOR GEOMETRICS
 05/09/1995 - 12/21/1998 FY99: \$0 Total: \$324,204
 Prin. Invest.: I A WAITZ, E N GREITZER, C S TAN
 Tech. Officer: GRC/J R DEBONIS
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 610 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5847
 THE EXTENSIONAL RHEOLOGY OF NON-NEWTONIAN MATERIAL EXTENSIONAL RHEOLOGY EXPERIMENT (ERE)
 04/21/1998 - 02/09/2003 FY99: \$200,000 Total: \$350,000
 Prin. Invest.: G H MCKINLEY
 Tech. Officer: GRC/N R HALL
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 3 632 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5848
 MIT ENGINEERING INTERSHIP PROGRAM
 06/30/1998 - 05/31/2000 FY99: \$37,800 Total: \$81,000
 Prin. Invest.: I A WATZ
 Tech. Officer: GRC/L POVINELLI
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 4 113 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5849
 DESIGN AND EVALUATION OF ROBUST RECONFIGURABILITY IN FLIGHT CONTROL SYSTEM
 12/11/1997 - 11/30/1999 FY99: \$0 Total: \$65,000
 Prin. Invest.: J D PADUANO, E FERON
 Tech. Officer: DFRC/J BURKEN
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 4 123 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5850
 DESIGN & EVALUATION OF FLIGHT CONTROL SYSTEMS
 04/28/1999 - 04/28/2000 FY99: \$60,000 Total: \$60,000
 Prin. Invest.: J D PADUANO
 Tech. Officer: DFRC/J BURKEN
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 212 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5851
 STUDENT RESEARCH ASSISTANTSHIPS FOR THE GODDARD/MI GEOSCIENCE
 07/08/1997 - 12/31/1999 FY99: \$150,000 Total: \$300,000
 Prin. Invest.: T H JORDAN
 Tech. Officer: GSFC/D E SMITH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 239 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5852
 EXAMINE AND CONFIRM THE APPROPRIATENESS OF THE STUD IMP 8 PLASMA KEY PARAMETERS.
 09/12/1997 - 09/14/1999 FY99: \$0 Total: \$50,706
 Prin. Invest.: D LAZARUS
 Tech. Officer: GSFC/R KESSEL
 CASE Category: 13 - PHYSICS

NCC 5 244 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5853
 BIOGEOCHEMICAL CYCLES USING MODELS AND DATA
 10/24/1997 - 09/30/1999 FY99: \$279,250 Total: \$512,250
 Prin. Invest.: J MARSHALL
 Tech. Officer: GSFC/J CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 330 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5854
 DEVELOPMENT OF ACCURATE STRUCTURE FOR MOUNTING AND ALIGNING THIN FOILX-RAY MIRRORS.
 05/07/1998 - 05/14/2000 FY99: \$68,177 Total: \$168,177
 Prin. Invest.: M SCHATTENBURG
 Tech. Officer: GSFC/R PETRE
 CASE Category: 11 - ASTRONOMY

NCC 5 416 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5855
 SOIL MOISTURE DATA ASSIMILATION FOR CONTINENTAL- SCALE LAND SURFACE HYDROLOGY APPLICATIONS
 08/04/1999 - 07/31/2000 FY99: \$53,650 Total: \$53,650
 Prin. Invest.: D MC LAUGHLIN
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 8 174 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5856
 R/S MICROGRAVITY TISSUE ENGINEERING
 03/31/1999 - 11/30/2002 FY99: \$623,664 Total: \$623,664
Prin. Invest.: L FREES
Tech. Officer: MSFC/K HIGGINBOTHAM
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 9 63 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5857
 CONTROL OF FLEXIBLE CONSTRUCTION SYSTEM
 08/28/1997 - 10/31/1999 FY99: \$100,000 Total: \$473,991
Prin. Invest.: D W MILLER
Tech. Officer: JSC/C PARRA
CASE Category: 41 - AERONAUTICAL ENGR

NGT 2 52256 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5858
 APPLYING 'HUMAN-CENTERED COMPUTING' METHODS TO THE DESIGN & EVALUATION OF COMPLEX ADAPTIVE HABITABL
 07/20/1999 - 07/31/1999 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J CONNOR, S A RODRIGUEZ
Tech. Officer: ARC/W CLANCEY, ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NGT 3 52346 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5859
 GRADUATE RESEARCHERS STUDENT PROGRAM
 07/28/1998 - 06/30/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: S HOCHGREB
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 46 - MECHANICAL ENGR

NGT 3 52358 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5860
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM
 07/15/1999 - 07/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: D D CLARK
Tech. Officer: GRC/F J MONTGANI
CASE Category: 49 - ENGINEERING, OTHER

NGT 3 52360 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5861
 GRADUATE STUDENT RESEARCHER PROGRAM GRADUATE STUDENT RESEARCHER PROGRAM
 07/15/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: G H MCKINLEY
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 25 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5862
 DESIGN AND FABRICATION OF MEMS - BASED SPACECRAFT PROPULSION SYSTEM
 07/15/1996 - 07/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: K BREUER
Tech. Officer: GSFC/G A SOFFEN, GSFC/D ASATO
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 57 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5863
 AN X-RAY SPECTROSCOPIC STUDY OF ELEMENTAL ABUNDANCY SYSTEM WITH ASCA
 08/27/1997 - 02/28/1999 FY99: -\$149 Total: \$21,851
Prin. Invest.: G W CLARK
Tech. Officer: GSFC/M S BURRELL
CASE Category: 11 - ASTRONOMY

NGT 5 30084 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5864
 THIRD YEAR: "A SPECTRAL REPRESENTATION OF THE NAT THE OCEAN"
 GSRP RECIPIENT: MICHAEL Y. CHECHELNI
 09/10/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: C WUNSCH
Tech. Officer: HQ/G ASRAR
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 30145 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5865
 TWO-WAY SURFACE WATER-GROUNDWATER INTERACTION: SPA TIAL ORGANIZATION OF HYDROLOGIC PROCESSES OVER C
 08/31/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: D ENTEKHABI
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30188 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5866
 THE IMPACT OF GLACIAL EROSION ON THE RELIEF STRUCTURE OF MOUNTAIN BELTS STUDENT: SIMON BROCKLEHURS
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: K X WHIPPLE
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30189 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5867
 TEMPORAL VARIABILITY OF AIR - SEA GAS FLUXES: ESTIMATION & INCORPORATION INTO AN INVERSE MODEL OF
 08/18/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J MARSHALL
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30190 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5868
 ADJOINT SENSITIVITY ANALYSIS OF THE COUPLED LAND- ATMOSPHERE SYSTEM/STUDENT: STEVEN A. MARGULIS
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: D ENTEKHABI
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30200 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5869
 AN INVESTIGATION OF STRATOSPHERIC TRANSPORT USING THE "LEAKY PIPE" MODEL STUDENT: JESSICA NEU
 08/24/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R A PLUMB
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30212 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5870
 THE SIGNATURE OF CLIMATIC & TECTONIC PROCESSES IN ALLUVIAL FANS: A NUMERICAL MODELING & REMOTE SENSING
 08/20/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R L BRAS
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NASA'S UNIVERSITY PROGRAM

MASSACHUSETTS

NGT 5 40048 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5871
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 01/24/1997 - 01/31/2000 FY99: \$475,000 Total: \$1,364,999
Prin. Invest.: L R YOUNG
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50037 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5872
 INTERNET ECONOMICS AND INTEROPERABILITY
 08/15/1997 - 08/31/1998 FY99: -\$15 Total: \$21,985
Prin. Invest.: L MCKIGHT/BAILEY
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52816 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5873
 GRADUATE STUDENT RESEARCH PROGRAM
 07/25/1996 - 09/13/1999 FY99: -\$15,372 Total: \$46,962
Prin. Invest.: J M KOMMERS
Tech. Officer: MSFC/G FISHMAN
CASE Category: 13 - PHYSICS

NGT 8 52860 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5874
 CHARACTERIZATION OF THERMAL SUBSYSTEMS FOR A MICROGRAVITY
 BRIDGMAN CRYSTAL GROWTH FURNACE
 07/23/1998 - 08/13/2000 FY99: \$0 Total: \$6,667
Prin. Invest.: A F WITT
Tech. Officer: MSFC/J F DOWDY
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 8 52880 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5875
 IDENTIFICATION AND CONTROL OF GRAVITY RELATED DEFECT FORMA-
 TION DURING MELT GROWTH
 09/09/1999 - 09/09/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: A WITT
Tech. Officer: MSFC/J DOWDY
CASE Category: 46 - MECHANICAL ENGR

NAG 5 6132 MT HOLYOKE COLLEGE 5876
 SUMMER MATH FOR MINORITY GIRLS. PROPOSED PERIOD OF
 01/01/97-12/31/97
 08/13/1997 - 12/31/1999 FY99: \$117,530 Total: \$352,608
Prin. Invest.: C MORROW
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 21 - MATHEMATICS

NAG 5 8635 MT HOLYOKE COLLEGE 5877
 CO2 AND CH4 EXCHANGE IN NORTHERN PEATLANDS
 07/07/1999 - 06/30/2000 FY99: \$117,337 Total: \$117,337
Prin. Invest.: J L BUBIER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1254 NORTHEASTERN UNIVERSITY 5878
 THE ROLE OF DYNAMIC NUCLEATION AT MOVING BOUNDRIES IN PHASE
 AND MICROSTRUCTURE SELECTION
 05/10/1996 - 05/09/2000 FY99: \$150,000 Total: \$495,000
Prin. Invest.: A KARMA, R TRIVEDI
Tech. Officer: MSFC/P DOTY, MSFC/R POWER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1485 NORTHEASTERN UNIVERSITY 5879
 R/S MODELING OF MACROSCOPIC/MICROSCOPIC TRANSPORT AND
 GROWTH PHENOMENA IN ZEOLITE CRYSTALS UNDER
 04/27/1998 - 05/31/2001 FY99: \$145,333 Total: \$205,333
Prin. Invest.: A SACCO
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NASW 96014 NORTHEASTERN UNIVERSITY 5880
 WRITE NASA HISTORY
 06/13/1996 - 05/30/1999 FY99: -\$4,694 Total: \$149,055
Prin. Invest.: W KAY
Tech. Officer: HQ/R D LAUNIUS
CASE Category: 73 - HISTORY

NCC 8 139 NORTHEASTERN UNIVERSITY 5881
 RESEARCH "CENTER FOR ADVANCED MICROGRAVITY MATERIALS PROC-
 ESSING (CAMMP)"
 06/27/1997 - 10/31/1999 FY99: \$2,175,000 Total: \$3,725,000
Prin. Invest.: A SACCO
Tech. Officer: MSFC/M NALL
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 8120 SMITH COLLEGE 5882
 A DEEP HRI SURVEY OF LOW-MASS PMS STARS IN NGC 226 4 (ADP98)
 02/19/1999 - 02/29/2000 FY99: \$24,716 Total: \$24,716
Prin. Invest.: B M PATTEN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 1 2049 TUFTS UNIVERSITY 5883
 MOVING LDAPS TO A REGIONAL-BASED PROGRAM NEW NASA RESEARCH
 GRANT
 04/13/1998 - 04/12/1999 FY99: \$21,391 Total: \$36,591
Prin. Invest.: C B ROGERS
Tech. Officer: LARC/J M SEATON, LARC/M D CANRIGHT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4972 TUFTS UNIVERSITY 5884
 VLA/SOHO INVESTIGATIONS OF THE SOLAR ATMOSPHERE
 06/23/1997 - 01/31/1999 FY99: \$0 Total: \$75,000
Prin. Invest.: P R LANG
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6269 TUFTS UNIVERSITY 5885
 VLA OBSERVATIONS IN SUPPORT OF NASA SOLAR PHYSICS
 08/21/1997 - 07/31/1999 FY99: \$0 Total: \$45,000
Prin. Invest.: P R LANG
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 8115 TUFTS UNIVERSITY 5886
 VLA-SOHO OBSERVATIONS OF BLINKERS AND CME'S11
 01/25/1999 - 01/31/2000 FY99: \$40,000 Total: \$40,000
Prin. Invest.: K R LANG
Tech. Officer: GSFC/J GURMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

MASSACHUSETTS

NASA'S UNIVERSITY PROGRAM

NAG 8 1167 TUFTS UNIVERSITY 5887
RESEARCH EVOLUTION OF CRYSTAL & AMORPHOUS PHASE STRUCTURE
12/06/1995 - 05/31/1998 FY99: -\$433 Total: \$102,119
Prin. Invest.: P CEBE
Tech. Officer: MSFC/B G PENN
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 8 1311 TUFTS UNIVERSITY 5888
JOVE RESEARCH
01/21/1997 - 08/31/1999 FY99: \$0 Total: \$55,000
Prin. Invest.: K P LENTL
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 22 - COMPUTER SCIENCE

NAG 8 1480 TUFTS UNIVERSITY 5889
STUDY OF DEVELOPMENT OF POLYMER STRUCTURE IN MICROGRAVITY
USING ELLIPSOMETRY
02/27/1998 - 01/31/2002 FY99: \$67,970 Total: \$137,970
Prin. Invest.: R CEBE
Tech. Officer: MSFC/P M DOTY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 5136 TUFTS UNIVERSITY 5890
RADIO STUDIES OF THE SOLAR CORONA IN SUPPORT OF NA SA MISSIONS
07/25/1996 - 07/31/1998 FY99: -\$1 Total: \$75,999
Prin. Invest.: K R LANG
Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 3 97002 TUFTS UNIVERSITY 5891
NRA CONTRACT "HEAT CONDUCTIONS IN CERAMIC COATINGS RELATION-
SHIP/MICROSTRUCTURE & EFF. THERMAL COND.
11/07/1996 - 03/07/1999 FY99: \$93,637 Total: \$263,304
Prin. Invest.: M KACHANOV
Tech. Officer: GRC/R A MILLER
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 918 TUFTS UNIVERSITY 5892
EDUCATION, TRAINING & LIFELONG LEARNING IN AERONAUTICS
07/26/1995 - 06/30/1999 FY99: \$0 Total: \$570,345
Prin. Invest.: C B ROGERS
Tech. Officer: ARC/M J LEON, ARC/W C LIKENS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 3 479 TUFTS UNIVERSITY 5893
DECOUPLING THE ROLE OF INERTIA AND GRAVITY ON PARTICLE DISPERSION
06/01/1996 - 05/31/2000 FY99: \$50,758 Total: \$280,859
Prin. Invest.: C ROGERS
Tech. Officer: GRC/T K GLASGOW
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 5 434 TUFTS UNIVERSITY 5894
THE SCIENCE AND ENGINEERING NASA SITE OF REMOTE SENSING (SENSORS)
09/22/1999 - 09/30/2000 FY99: \$60,000 Total: \$60,000
Prin. Invest.: C ROGERS
Tech. Officer: GSFC/N LAL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50050 TUFTS UNIVERSITY 5895
CONTROL OF PARTICLE CONCENTRATION FIELD IN MICROGRAVITY
08/12/1997 - 08/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: C B ROGERS
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1197 UNIV OF MASSACHUSETTS @ WORCESTER 5896
EFFECTS OF GRAVITY ON CELL MOVEMENT & DEVELOPMENT
04/02/1998 - 09/30/1999 FY99: \$163,740 Total: \$230,857
Prin. Invest.: Y L WANG
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1358 UNIV OF MASSACHUSETTS @ WORCESTER 5897
R/S MICROGRAVITY AND THE BIOLOGY OF NEURAL STEM CELLS
06/19/1997 - 11/30/1999 FY99: \$165,999 Total: \$413,990
Prin. Invest.: W SHARTZ
Tech. Officer: JSC/B GUYNES
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 9 819 UNIV OF MASSACHUSETTS @ WORCESTER 5898
STEM CELL EXPANSION IN ROTATING BIOREACTORS
08/17/1995 - 08/31/1999 FY99: \$0 Total: \$690,000
Prin. Invest.: P J QUESENBERRY
Tech. Officer: JSC/N PELLIS
CASE Category: 56 - MEDICAL

NAG 9 820 UNIV OF MASSACHUSETTS @ WORCESTER 5899
INFLUENCE OF MICROGRAVITY CONDITIONS ON GENE TRANSFER INTO
EXPANDED POPULATIONS
08/17/1995 - 09/17/1999 FY99: \$0 Total: \$850,000
Prin. Invest.: F M STEWART
Tech. Officer: JSC/N PELLIS
CASE Category: 56 - MEDICAL

NAG 1 1022 UNIVERSITY OF MASSACHUSETTS - AMHERST 5900
GROUND-BASED MILLIMETER-WAVE MEASUREMENT OF OZONE IN THE
MIDDLE ATMOSPHERE
06/19/1989 - 12/31/1999 FY99: \$226,822 Total: \$1,526,585
Prin. Invest.: A D PARRISH
Tech. Officer: LARC/L E DEEVER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1991 UNIVERSITY OF MASSACHUSETTS - AMHERST 5901
MODEL-BASED SENSOR SELECTION FOR HELICOPTER GEARBOX MONITORING
11/18/1996 - 11/17/1998 FY99: -\$11 Total: \$67,295
Prin. Invest.: K DANA
Tech. Officer: GRC/D G LEWICKI
CASE Category: 46 - MECHANICAL ENGR

NAG 5 3653 UNIVERSITY OF MASSACHUSETTS - AMHERST 5902
BOUNDARY CONDITIONS FOR THE PALEOENVIRONMENT: CHEMICAL PROCESSES
IN INTERSTELLAR CLOUDS
03/24/1997 - 10/14/1999 FY99: \$0 Total: \$148,639
Prin. Invest.: D M IRVINE
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3789 UNIVERSITY OF MASSACHUSETTS - AMHERST 5903
 COMPARISON OF SEAFLOOR AND VENUSIAN PANCAKE DOMES
 03/07/1997 - 10/31/1997 FY99: \$0 Total: \$35,000
Prin. Invest.: G E MCGILL
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3922 UNIVERSITY OF MASSACHUSETTS - AMHERST 5904
 ORIGIN OF QUASAR ABSORPTION LINES IN A COSMOLOGICAL
 03/24/1997 - 03/31/2000 FY99: \$40,000 Total: \$120,000
Prin. Invest.: N KATZ
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4064 UNIVERSITY OF MASSACHUSETTS - AMHERST 5905
 A THEORETICAL STUDY OF PROCESSES DRIVING THE FORMATION
 03/18/1997 - 03/31/2000 FY99: \$52,435 Total: \$151,330
Prin. Invest.: N KATZ
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4272 UNIVERSITY OF MASSACHUSETTS - AMHERST 5906
 A CRYOGENIC FREQUENCY MULTIPLIER CHAIN FOR 1000 GH
 04/18/1997 - 12/31/1999 FY99: \$32,917 Total: \$151,998
Prin. Invest.: D R ERICKSON
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4373 UNIVERSITY OF MASSACHUSETTS - AMHERST 5907
 PLANETARY, TECTONICS, AREAL GEOLOGY, AND GEOLOGICAL
 04/25/1997 - 01/31/2000 FY99: \$43,100 Total: \$123,100
Prin. Invest.: D E MCGILL
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4652 UNIVERSITY OF MASSACHUSETTS - AMHERST 5908
 SHOCK AND THERMAL HISTORY OF IRON AND CHONDRITIC METALS
 06/11/1997 - 02/29/2000 FY99: \$166,667 Total: \$399,000
Prin. Invest.: D I GOLDSTEIN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4743 UNIVERSITY OF MASSACHUSETTS - AMHERST 5909
 MILLIMETER-WAVE AND RADIO STUDIES OF SOLAR SYSTEM
 06/04/1997 - 05/31/1999 FY99: \$0 Total: \$55,000
Prin. Invest.: D SCHLOERB
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4999 UNIVERSITY OF MASSACHUSETTS - AMHERST 5910
 STRUCTURAL AND GEOMORPHIC EVOLUTION OF THE MARTIAN
 07/24/1997 - 07/14/2000 FY99: \$69,011 Total: \$121,184
Prin. Invest.: G MCGILL
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 5151 UNIVERSITY OF MASSACHUSETTS - AMHERST 5911
 RADARSAT UNDERFLIGHTS: COMPARISON OF C-BAND VV AND HH BACK-
 SCATTER-WIND RETRIEVAL
 09/21/1997 - 04/30/1998 FY99: -\$1,113 Total: \$24,622
Prin. Invest.: R E MCINTOSH, J R CARSWELL
Tech. Officer: GSFC/D C VANDEMARK, GSFC/E WALSH
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 6028 UNIVERSITY OF MASSACHUSETTS - AMHERST 5912
 PLANAR SUBMILLIMETER MIXER AND MULTIPLIER DEVELOPMENT
 09/11/1997 - 09/14/1998 FY99: -\$6,687 Total: \$23,160
Prin. Invest.: N ERICKSON
Tech. Officer: GSFC/G CHIN
CASE Category: 11 - ASTRONOMY

NAG 5 6161 UNIVERSITY OF MASSACHUSETTS - AMHERST 5913
 UMASS PLANET EARTH EDUCATION PROGRAMS
 08/01/1997 - 10/31/1999 FY99: \$20,000 Total: \$40,000
Prin. Invest.: M STERNHEIM
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6612 UNIVERSITY OF MASSACHUSETTS - AMHERST 5914
 MILLIMETER-WAVE AND RADIO STUDIES OF SOLAR SYSTEM OBJECTS
 02/12/1998 - 12/31/1999 FY99: \$72,392 Total: \$148,246
Prin. Invest.: F SCHLOERB
Tech. Officer: GSFC/T MORGAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6701 UNIVERSITY OF MASSACHUSETTS - AMHERST 5915
 ENVIRONMENTAL EVOLUTION. LIFE'S EFFECTS ON THE PRECAMBRIAN AND
 PROTEROZOIC EARTH: AN INTEGRATED RESEARCH
 12/04/1997 - 08/31/2000 FY99: \$171,225 Total: \$256,225
Prin. Invest.: L MARGULIS
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 6848 UNIVERSITY OF MASSACHUSETTS - AMHERST 5916
 DUST, GAS AND STAR FORMATION IN ANDROMEDA (M31) AND NGC 7500
 01/12/1998 - 12/31/1999 FY99: \$0 Total: \$58,672
Prin. Invest.: J YOUNG
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7575 UNIVERSITY OF MASSACHUSETTS - AMHERST 5917
 COMPUTING OUR ORIGINS
 07/28/1998 - 05/31/2000 FY99: \$26,480 Total: \$51,942
Prin. Invest.: N KATZ
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7651 UNIVERSITY OF MASSACHUSETTS - AMHERST 5918
 LOW-NOISE HOT ELECTRON BOLOMETRIC HETERODYNE RECEIVERS
 FOR THE THZ REGION, USING NBN
 09/17/1998 - 08/31/1999 FY99: \$0 Total: \$60,199
Prin. Invest.: K YNGVESSON
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 8184 UNIVERSITY OF MASSACHUSETTS - AMHERST 5919
 MARTIAN POLYGONAL TERRAIN: TESTS FOR SEDIMENTARY ORIGIN OF DEPOSITS
 02/16/1999 - 03/14/2000 FY99: \$17,300 Total: \$17,300
 Prin. Invest.: G E MCGILL
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8197 UNIVERSITY OF MASSACHUSETTS - AMHERST 5920
 SCALABLE PARALLEL STATISTICAL INFERENCE AND MODEL COMPARISON USING LARGE DATABASES
 02/04/1999 - 01/31/2000 FY99: \$225,067 Total: \$225,067
 Prin. Invest.: M WEIENBERG
 Tech. Officer: GSFC/J BREDEKAMP
 CASE Category: 11 - ASTRONOMY

NAG 5 8718 UNIVERSITY OF MASSACHUSETTS - AMHERST 5921
 BOUNDARY CONDITIONS FOR THE PALEOENVIRONMENT: THE CHEMISTRY OF DENSE INTERSTELLAR CLOUDS & COMETS
 07/29/1999 - 10/14/2000 FY99: \$79,277 Total: \$79,277
 Prin. Invest.: W M IRVINE
 Tech. Officer: GSFC/M MEYER
 CASE Category: 11 - ASTRONOMY

NAG 8 1490 UNIVERSITY OF MASSACHUSETTS - AMHERST 5922
 IMPROVING HURRICANE LANDFALL INTENSITY FORECASTS THRU MICRO-WAVE REMOTE SENSING OF SURFACE WIND
 01/30/1998 - 02/01/2000 FY99: \$75,740 Total: \$161,916
 Prin. Invest.: C T SWIFT
 Tech. Officer: MSFC/J ARNOLD, HQ/R K KAKAR
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 2430 UNIVERSITY OF MASSACHUSETTS - AMHERST 5923
 DEVELOPMENT OF A 1036 HETERODYNE RECEIVER FOR ASTRONOMICAL APPLICATIONS
 07/31/1991 - 08/31/1998 FY99: -\$59 Total: \$149,941
 Prin. Invest.: N ERICKSON
 Tech. Officer: HQ/M BICAY
 CASE Category: 13 - PHYSICS

NAGW 4514 UNIVERSITY OF MASSACHUSETTS - AMHERST 5924
 SHOCK AND THERMAL HISTORY OF IRON AND CHONDRITIC METEORITES
 07/12/1995 - 12/31/1998 FY99: \$0 Total: \$297,262
 Prin. Invest.: J GOLDSTEIN
 Tech. Officer: HQ/D NAVA
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAS 5 99133 UNIVERSITY OF MASSACHUSETTS - AMHERST 5925
 TWO DIMENSIONAL SYNTHETIC APERTURE RADIOMETER
 08/03/1999 - 08/02/2002 FY99: \$36,100 Total: \$36,100
 Prin. Invest.: K CARVER
 Tech. Officer: GSFC/D LEVINE
 CASE Category: 45 - ELECTRICAL ENGR

NCC 3 672 UNIVERSITY OF MASSACHUSETTS - AMHERST 5926
 DEVELOPMENT OF NOVEL HIGH TEMPERATURE THIN FILM THERMOCOUPLES
 03/03/1999 - 11/11/1999 FY99: \$38,000 Total: \$38,000
 Prin. Invest.: S B DESU
 Tech. Officer: GRC/G C FRALICK
 CASE Category: 47 - METAL & MATERIALS ENGR

NGT 9 32 UNIVERSITY OF MASSACHUSETTS - AMHERST 5927
 TRAINING GRANT
 06/04/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: R E VAN EMMERIK
 Tech. Officer: JSC/D G SICKOREZ
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6500 UNIVERSITY OF MASSACHUSETTS-DARTHMOUTH 5928
 RESEARCH EQUIPMENT FOR LABORATORY FOR PROCESSING AND REMOTE IMAGING OF THE MARINE ENVIRONMENT (PRI)
 10/24/1997 - 12/31/1998 FY99: \$0 Total: \$63,000
 Prin. Invest.: C CHEN
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6605 UNIVERSITY OF MASSACHUSETTS-DARTHMOUTH 5929
 INTERANNUAL PHYSICAL AND BIOLOGICAL VARIABILITY OF THE NORTH-EAST U.S. COAST
 12/11/1997 - 11/14/1999 FY99: \$58,201 Total: \$119,815
 Prin. Invest.: J BISAGNI
 Tech. Officer: GSFC/J CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG13 48 UNIVERSITY OF MASSACHUSETTS-DARTHMOUTH 5930
 ADVANCED FISHERIES MANAGEMENT INFORMATION SYSTEM
 04/23/1997 - 05/31/2000 FY99: \$411,120 Total: \$861,120
 Prin. Invest.: B ROTHSCHILD
 Tech. Officer: SSC/C HILL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4046 WELLESLEY COLLEGE 5931
 STRUCTURE AND DYNAMICS OF PLANETARY RINGS
 03/10/1997 - 09/30/2000 FY99: \$45,000 Total: \$132,000
 Prin. Invest.: R G FRENCH
 Tech. Officer: GSFC/P G ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6222 WELLESLEY COLLEGE 5932
 HIGH-RESOLUTION LABORATORY MEASUREMENTS OF UV ABSORPTION AND LINE WIDTHS FOR SO₂ AND N₂
 08/25/1997 - 06/30/2000 FY99: \$32,467 Total: \$96,200
 Prin. Invest.: D STARK
 Tech. Officer: GSFC/S HOWARD
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 1368 WELLESLEY COLLEGE 5933
 DYNAMICS AND STRUCTURE OF PLANETARY RINGS
 07/11/1988 - 09/30/1997 FY99: -\$11,698 Total: \$356,036
 Prin. Invest.: R G FRENCH
 Tech. Officer: HQ/J UNDERWOOD, HQ/J M BOYCE
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 5200 WELLESLEY COLLEGE 5934
 HIGH RESOLUTION LAB MEASUREMENTS OF UV ABSORPTION CROSS SECTIONS & LINE WIDTHS FOR SO₂ & N₂
 09/26/1996 - 07/31/1998 FY99: \$0 Total: \$55,572
 Prin. Invest.: G STARK
 Tech. Officer: HQ/J BERGSTRALH, HQ/H C BRINTON
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7818 WILLIAMS COLLEGE 5935
 COORDINATED EIT OBSERVATIONS WITH ECLIPSE OBSERVATIONS
 12/14/1998 - 12/14/1999 FY99: \$24,811 Total: \$24,811
 Prin. Invest.: J M PASACHOFF
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 2884 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5936
 EOSDIS CORE SYSTEM USABILITY TEST
 02/08/1995 - 03/31/1999 FY99: -\$465 Total: \$382,275
 Prin. Invest.: D M GLOVER
 Tech. Officer: GSFC/K R MCDONALD
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 3752 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5937
 SEARCHING FOR NATURAL MASS FRACTIONATION OF MOLYBD
 11/18/1996 - 08/31/1998 FY99: -\$92 Total: \$69,908
 Prin. Invest.: G E RAVIZZA
 Tech. Officer: GSFC/D HOLLAND
 CASE Category: 12 - CHEMISTRY

NAG 5 4812 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5938
 THE DEVELOPMENT OF A GENERAL CIRCULATION MODEL FOR OCEANIC
 FORECASTING AND CLIMATE STUDY
 06/19/1997 - 12/31/1998 FY99: \$0 Total: \$95,000
 Prin. Invest.: D HUANG
 Tech. Officer: GSFC/E J LINDSTROM
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 4847 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5939
 BIOGEOCHEMICAL FLUXES AT THE OCEAN/ATMOSPHERE INTE
 06/23/1997 - 11/30/1998 FY99: -\$57 Total: \$322,916
 Prin. Invest.: D GOYET
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 6455 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5940
 MODELING MESOSCALE BIOGEOCHEMICAL PROCESSES IN A T OPEX/
 POSEIDON DIAMOND SURROUNDING THE U.S. JGOFS
 11/04/1997 - 09/30/1999 FY99: \$158,059 Total: \$327,088
 Prin. Invest.: D J MCGILLICUDDY
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6456 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5941
 STUDYING THE ANNUAL AND INTER-ANNUAL VARIABILITY IN OCEAN
 COLOR USING SATELLITE DATA AND GLOBAL M
 11/03/1997 - 09/30/2000 FY99: \$30,000 Total: \$225,911
 Prin. Invest.: D M GLOVER
 Tech. Officer: GSFC/J A YODER
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 6660 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5942
 ISOTOPIC BIOGEOCHEMISTRY
 11/25/1997 - 12/31/1999 FY99: \$100,000 Total: \$300,000
 Prin. Invest.: D M HAYES
 Tech. Officer: GSFC/M MEYER
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 7348 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5943
 STUDIES OF HEAT, SALT, AND RADIATIVE FLUXES IN THE ARCTIC USING-
 SATELLITE AND BUOY OBSERVAT
 04/28/1998 - 04/30/2000 FY99: \$60,000 Total: \$120,000
 Prin. Invest.: J YANG
 Tech. Officer: GSFC/J COMISO
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 7445 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5944
 OPTICAL CLASSIFICATION OF WATER TYPES FROM SEAWIFS DATA: A
 HYBRID APPROACH USING BOTH SEMI-AN
 06/04/1998 - 08/31/2001 FY99: \$40,000 Total: \$130,268
 Prin. Invest.: H M SOSIK, NONE
 Tech. Officer: GSFC/J W CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7538 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5945
 BIOLOGICAL INTERPRETATION OF OCEAN COLOR: OBSERVATIONS AND
 MODELS FOR WATERS OF THE MID-ATLANTIC
 06/16/1998 - 02/28/2000 FY99: \$0 Total: \$180,000
 Prin. Invest.: H SOSIK
 Tech. Officer: GSFC/A JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7770 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5946
 STUDIES OF ANTARCTIC SEA ICE AND SOUTHERN OCEAN TEMPERATURE
 MINIMUM LAYER USING SATELLITE AND I
 10/22/1998 - 12/31/2001 FY99: \$58,835 Total: \$58,835
 Prin. Invest.: R A KRISHFIELD
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8450 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5947
 HOW NUTRIENT CYCLES CONSTRAIN CARBON BALANCES IN BOREAL
 FORESTS AND ARCTIC TUNDRA
 04/09/1999 - 05/31/1999 FY99: \$0 Total: \$0
 Prin. Invest.: K J NADELHOFFER
 Tech. Officer: GSFC/J K RANSON
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 2431 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5948
 BIOGEOCHEMICAL FLUXES AT THE OCEAN/ATMOSPHERE INTERFACE
 04/25/1991 - 12/31/1997 FY99: -\$1,899 Total: \$4,486,251
 Prin. Invest.: P G BREWER
 Tech. Officer: HQ/B MITCHELL
 CASE Category: 33 - OCEANOGRAPHY

NAGW 3648 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5949
 A COUPLED BIOLOGICAL-PHYSICAL MODEL FOR STUDYING ANNUAL AND
 INTER-ANNUAL VARIABILITY IN SEAWIFS
 07/14/1993 - 12/31/1997 FY99: -\$29 Total: \$369,736
 Prin. Invest.: D M GLOVER
 Tech. Officer: HQ/R MURPHY
 CASE Category: 33 - OCEANOGRAPHY

NGT 5 30206 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5950
 INTERPRETATION OF VARIABILITY IN WATER COLUMN OPTICAL PROP-
 erties THROUGH SINGLE-PARTICLE ANALYSIS
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: H SOSIK
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 3 1873 WORCESTER POLYTECHNIC INSTITUTE 5951
 MODELING OF PULSED PLASMA THRUSTER PLUMES
 05/22/1996 - 03/31/1999 FY99: \$0 Total: \$103,139
Prin. Invest.: D A GATSOMIS
Tech. Officer: GRC/E J PENCIL
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 7421 WORCESTER POLYTECHNIC INSTITUTE 5952
 STUDENT PROJECTS AT THE GODDARD SPACE FLIGHT CENTE R
 05/28/1998 - 06/30/1999 FY99: \$0 Total: \$15,000
Prin. Invest.: F J LOOFF
Tech. Officer: GSFC/M BROWN
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 8578 WORCESTER POLYTECHNIC INSTITUTE 5953
 FUNDING FOR UNSOLICITED PROPOSAL FOR "STUDENT PROJ ECTS AT
 THE GODDARD SPACE FLIGHT CENTER"
 05/26/1999 - 06/30/2000 FY99: \$15,000 Total: \$15,000
Prin. Invest.: F J LOOFF
Tech. Officer: GSFC/M R BROWN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1255 WORCESTER POLYTECHNIC INSTITUTE 5954
 MODELING OF MACROSCOPIC/MICROSCOPIC TRANSPORT AND GROWTH
 PHENOMENA
 05/30/1996 - 05/31/1998 FY99: \$0 Total: \$183,924
Prin. Invest.: A SACCO
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 1014 WORCESTER POLYTECHNIC INSTITUTE 5955
 GENESIS DISCOVERY MISSION PHASE B
 05/12/1998 - 06/29/2000 FY99: \$73,100 Total: \$133,100
Prin. Invest.: K M RUTLEDGE
Tech. Officer: JSC/K E CYR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 3 673 WORCESTER POLYTECHNIC INSTITUTE 5956
 COMBUSTION CHARACTERISTICS OF FULLY-MODULATED, TUR BULENT
 DIFFUSION FLAMES IN REDUCED GRAVITY
 02/23/1999 - 01/13/2003 FY99: \$56,383 Total: \$56,383
Prin. Invest.: D C HERMANSON
Tech. Officer: GRC/D P STOCKER
CASE Category: 49 - ENGINEERING, OTHER

MICHIGAN

NCC 3 609 BAY MILLS COMMUNITY COLLEGE 5957
 RENEWABLE ENERGY EDUCATION PROGRAM RENEWABLE ENERGY
 EDUCATION PROGRAM
 04/17/1998 - 02/18/1999 FY99: \$0 Total: \$30,000
Prin. Invest.: T DAVIS
Tech. Officer: GRC/A F HEPP
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6409 GRAND VALLEY STATE UNIVERSITY 5958
 PROVIDES FUNDING FOR TECH SUPPORT FOR "GPS MONITOR ING OF
 STRAINACCUMULATION IN THE NEW MAD
 10/24/1997 - 10/31/1999 FY99: \$0 Total: \$2,999
Prin. Invest.: J WEBER
Tech. Officer: GSFC/B BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 1 1837 KETTERING UNIVERSITY 5959
 STRUCTURAL OPTIMIZATION WITH COST MINIMIAZION USING NONLINEAR
 GOAL PROGRAMMING
 05/29/1996 - 05/31/1999 FY99: \$35,125 Total: \$135,376
Prin. Invest.: M EL-SAYED
Tech. Officer: LARC/J M HOUSNER/W J 23ROUD
CASE Category: 46 - MECHANICAL ENGR

NAG 8 1337 KETTERING UNIVERSITY 5960
 HIGH ORDER SHOCK CAPTURING ALL SPEED COMPACT SCHEME FOR
 REACTING FLOWS
 02/24/1997 - 05/31/1999 FY99: -\$43 Total: \$59,957
Prin. Invest.: R BERG
Tech. Officer: MSFC/K GROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 1 2213 MICHIGAN STATE UNIVERSITY 5961
 PENALTY-BASED FINITE ELEMENT INTERFACE TECHNOLOGY FOR ANALY-
 SIS OF HOMOGENEOUS & COMPOSITE STRUCTURES
 07/12/1999 - 06/30/2001 FY99: \$27,327 Total: \$27,327
Prin. Invest.: R C AVERILL
Tech. Officer: LARC/J B RANSOM
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1749 MICHIGAN STATE UNIVERSITY 5962
 IMAGE TILING FOR HIGH RESOLUTION SOLID SURFACE PRO FILING
 05/26/1995 - 12/31/1998 FY99: \$14,999 Total: \$115,097
Prin. Invest.: A K JAIN
Tech. Officer: GRC/C R MERCER
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2203 MICHIGAN STATE UNIVERSITY 5963
 CONTROL OF SHOCK-WAVE/BOUNDARY-LAYER INTERACTIONS WITH
 BLEED
 09/25/1998 - 11/30/1999 FY99: \$79,628 Total: \$100,992
Prin. Invest.: T I SHIH
Tech. Officer: GRC/B P WILLIS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2234 MICHIGAN STATE UNIVERSITY 5964
 DEVELOPMENT AND IMPLEMENTATION OF A GLOBAL BLEED B OUNDARY
 CONDITION
 03/11/1999 - 01/20/2002 FY99: \$60,000 Total: \$60,000
Prin. Invest.: T SHIH
Tech. Officer: GRC/D DAVIS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3218 MICHIGAN STATE UNIVERSITY 5965
 CCD SYSTEM TECHNOLOGY FOR EXTREMELY LOW BACKGROUND
 OBSERVATIONS
 04/26/1996 - 09/30/2000 FY99: \$169,500 Total: \$497,500
Prin. Invest.: E D LOH
Tech. Officer: GSFC/E CHENG
CASE Category: 13 - PHYSICS

NAG 5 3484 MICHIGAN STATE UNIVERSITY 5966
 ANALYSIS OF MR CYGNI & BETA LYRAE
 10/31/1996 - 10/31/1997 FY99: \$0 Total: \$26,597
 Prin. Invest.: A P LINNELL
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 4031 MICHIGAN STATE UNIVERSITY 5967
 SOLAR CONVECTION AND ATMOSPHERIC DYNAMICS
 02/24/1997 - 02/29/2000 FY99: \$0 Total: \$207,000
 Prin. Invest.: R F STEIN
 Tech. Officer: GSFC/W J WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 4810 MICHIGAN STATE UNIVERSITY 5968
 ACQUISITION AND ANALYSIS OF LARGE QUANTITIES OF LA MEASURING
 TROPICAL LAND COVER CHANGE (NRA-MTPE-03)
 07/30/1997 - 10/31/1999 FY99: \$167,555 Total: \$415,100
 Prin. Invest.: D SKOLE
 Tech. Officer: GSFC/D WILLIAMS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6042 MICHIGAN STATE UNIVERSITY 5969
 HIERARCHICAL INVESTIGATION OF SOCIOECONOMIC DRIVER LAND-
 COVER CHANGES IN THE UPPER MIDWEST
 07/23/1997 - 07/31/1999 FY99: -\$73,879 Total: \$268,867
 Prin. Invest.: D BROWN
 Tech. Officer: GSFC/A JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6480 MICHIGAN STATE UNIVERSITY 5970
 MICHIGAN STATE UNIVERSITY CENTER OF EXCELLENCE IN APPLICATIONS
 OF REMOTESENSING TO REGIONAL AND GLOB
 11/18/1997 - 03/31/1999 FY99: \$0 Total: \$392,185
 Prin. Invest.: D L SKOLE
 Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6522 MICHIGAN STATE UNIVERSITY 5971
 PREPARING LANDSCAPE ECOLOGISTS FOR THE 21ST CENTURY
 12/01/1997 - 12/31/1998 FY99: \$0 Total: \$10,000
 Prin. Invest.: J LIU
 Tech. Officer: GSFC/A C JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6538 MICHIGAN STATE UNIVERSITY 5972
 CASE STUDIES AND DIAGNOSTIC MODELS OF THE INTER-ANNUAL
 DYNAMICS OF DEFORESTATION IN SOUTHEAST ASIA
 04/21/1998 - 09/30/2000 FY99: \$0 Total: \$403,750
 Prin. Invest.: D SKOLE
 Tech. Officer: GSFC/A JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6638 MICHIGAN STATE UNIVERSITY 5973
 LANDSAT PATHFINDER - HUMID TROPICAL FOREST PROJECT
 11/18/1997 - 10/31/1999 FY99: \$0 Total: \$317,647
 Prin. Invest.: D SKOLE
 Tech. Officer: GSFC/A JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6949 MICHIGAN STATE UNIVERSITY 5974
 THE USE OF SAR FOR MONITORING DEFORESTATION AND SE CONDARY
 GROWTH IN THE TOPICS
 02/18/1998 - 12/31/1998 FY99: \$0 Total: \$47,753
 Prin. Invest.: D L SKOLE
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7650 MICHIGAN STATE UNIVERSITY 5975
 THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PRE-
 DICT MOSQUITO-BORNE ENCEPHALITIS TRANSMIS
 09/01/1998 - 12/31/1999 FY99: \$6,000 Total: \$36,000
 Prin. Invest.: N WALKER
 Tech. Officer: GSFC/B W MESSON
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7726 MICHIGAN STATE UNIVERSITY 5976
 THEORETICAL INVESTIGATION OF TIME-DISTANCE HELIOSEISMOLOGY-
 NEW GRANT
 09/24/1998 - 09/30/1999 FY99: \$0 Total: \$44,000
 Prin. Invest.: R F STEIN
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8053 MICHIGAN STATE UNIVERSITY 5977
 SOLAR CONVECTION AND OSCILLATIONS
 01/12/1999 - 01/14/2000 FY99: \$60,000 Total: \$60,000
 Prin. Invest.: R F STEIN
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8317 MICHIGAN STATE UNIVERSITY 5978
 ENHANCING PROFESSIONAL DEVELOPMENT OF LANDSCAPE ECOLOGISTS
 OF THE NEXT GENERATION
 03/26/1999 - 02/28/2000 FY99: \$10,000 Total: \$10,000
 Prin. Invest.: J LIU
 Tech. Officer: GSFC/A C JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1575 MICHIGAN STATE UNIVERSITY 5979
 MICROGRAVITY REGULATION OF ONCOGENE EXPRESSION AND OSTEO-
 BLAST DIFFERENTIATION.
 02/17/1999 - 11/30/2002 FY99: \$107,000 Total: \$107,000
 Prin. Invest.: L R MCCABE
 Tech. Officer: GSFC/B GUYNES
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 3 662 MICHIGAN STATE UNIVERSITY 5980
 INVESTIGATION OF DIFFUSION FLAME TIP INSTABILITY IN MICROGRAVITY
 01/14/1999 - 01/03/2003 FY99: \$50,368 Total: \$50,368
 Prin. Invest.: I S WICHMAN
 Tech. Officer: GRC/S OLSON
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 291 MICHIGAN STATE UNIVERSITY 5981
 MEASUREMENT AND MODELING OF THE INTER-ANNUAL DYNAMICS OF
 DEFORESTATION AND REGROWTH IN THE BRAZIL
 06/16/1998 - 12/31/1999 FY99: \$162,069 Total: \$392,748
 Prin. Invest.: D SKOLE Prin. Invest.: NONE
 Tech. Officer: GSFC/D DEERING
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 303 **MICHIGAN STATE UNIVERSITY** **5982**
 CREATIVE & INNOVATIVE WORKING PROTOTYPE EARTH SCIENCE
 INFORMATION PARTNERSHIPS IN SUPPORT
 04/09/1998 - 02/28/2001 FY99: \$1,000,000 Total: \$2,475,000
Prin. Invest.: D SKOLE
Tech. Officer: GSFC/M MAIDEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 7 2 **MICHIGAN STATE UNIVERSITY** **5983**
 BUILDING COMMUNICATIONS NETWORK
 09/02/1994 - 03/31/1999 FY99: \$0 Total: \$2,196,000
Prin. Invest.: M MOCH, N ALTIERO
Tech. Officer: NMO/A HUSAIN
CASE Category: 22 - COMPUTER SCIENCE

NGT 1 52216 **MICHIGAN STATE UNIVERSITY** **5984**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/01/1999 - 06/30/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: L M HUDY, A NAGUIB
Tech. Officer: LARC/W M HUMPHREYS, JR.
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 30166 **MICHIGAN STATE UNIVERSITY** **5985**
 MAPPING THE SPATIAL DISTRIBUTION OF BAMBOO IN A GIANT PANDA
 RESERVE: A STUDY OF THE RELATIONSHIP
 09/01/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J LIU
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50150 **MICHIGAN STATE UNIVERSITY** **5986**
 AN INTEGRATED ASSESSMENT OF THE CUMULATIVE IMPACTS ARCTIC
 DEVELOPMENT
 09/11/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: P WEBBER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT10 52612 **MICHIGAN STATE UNIVERSITY** **5987**
 GRADUATE STUDENT RESEARCH GRANT
 09/01/1997 - 07/30/1999 FY99: -\$16,667 Total: \$27,333
Prin. Invest.: C CRIDDLE
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT13 52715 **MICHIGAN STATE UNIVERSITY** **5988**
 NASA GRADUATE STUDENT RESEARCHER PROGRAM FOR STACEY A.C.
 NELSON
 10/01/1997 - 08/15/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: P SORRANO
Tech. Officer: SSC/A JOYCE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 3 2088 **MICHIGAN TECHNOLOGICAL UNIVERSITY** **5989**
 NUMERICAL STUDIES OF THE LDI AND THE LPP/LDI GAS TURBINE COM-
 BUSTOR CONCEPTS
 12/23/1997 - 12/27/1999 FY99: \$85,000 Total: \$135,000
Prin. Invest.: S L YANG
Tech. Officer: GRC/R R TACINA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3279 **MICHIGAN TECHNOLOGICAL UNIVERSITY** **5990**
 NO COST TIME EXTENSION
 07/01/1996 - 06/30/1998 FY99: \$0 Total: \$85,000
Prin. Invest.: R J NEMIROFF
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3689 **MICHIGAN TECHNOLOGICAL UNIVERSITY** **5991**
 COOL STARS ATMOSPHERIC MODELS. COMPUTATIONS OF HIG
 01/14/1997 - 06/30/2000 FY99: \$49,100 Total: \$141,278
Prin. Invest.: A BORYSOW
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4534 **MICHIGAN TECHNOLOGICAL UNIVERSITY** **5992**
 MODELING OF COLLISION INDUCED ABSORPTION SPECTRA OF PLANETARY
 ATMOSPHERE OF VENUS
 05/06/1997 - 06/30/1999 FY99: -\$39 Total: \$45,861
Prin. Invest.: D BORYSOW
Tech. Officer: GSFC/J BERSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4756 **MICHIGAN TECHNOLOGICAL UNIVERSITY** **5993**
 CONTINUING THE SEARCH FOR GRAVITATIONAL LENSING IN
 EXTRA-SOLAR PLANETS
 06/17/1997 - 05/31/2000 FY99: \$13,000 Total: \$46,000
Prin. Invest.: R J NEMIROFF
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6310 **MICHIGAN TECHNOLOGICAL UNIVERSITY** **5994**
 LINEAR ADAPTIVE MIRROR TESTBED TO SUPPORT DIRECT DETECTION OF
 EXTRA-SOLAR PLANETS
 10/06/1997 - 06/14/2000 FY99: \$62,280 Total: \$217,768
Prin. Invest.: D FTACLAS
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6650 **MICHIGAN TECHNOLOGICAL UNIVERSITY** **5995**
 CENTER FOR ENVIRONMENTAL REMOTE SENSING EDUCATION FOR ENGI-
 NEERS AND SCIENTISTS AT MICHIGAN TECH
 12/10/1997 - 11/30/1998 FY99: -\$276 Total: \$400,668
Prin. Invest.: G J BLUTH
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7051 **MICHIGAN TECHNOLOGICAL UNIVERSITY** **5996**
 LAKE SUPERIOR ICE FIELD MEASUREMENTS FOR C-BAND SAR BACK-
 SCATTER SIGNATURES AND ICE COVER AN
 03/12/1998 - 12/31/1999 FY99: \$66,890 Total: \$141,576
Prin. Invest.: D PILANT
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7272 **MICHIGAN TECHNOLOGICAL UNIVERSITY** **5997**
 VOLCANIC PLUME ANALYSIS USING TOMS AND AVHRR DATA
 04/30/1998 - 05/14/1999 FY99: \$0 Total: \$35,000
Prin. Invest.: W ROSE
Tech. Officer: GSFC/A J KRUEGER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7576 MICHIGAN TECHNOLOGICAL UNIVERSITY 5998
 FUNDING FOR 'APPLICATION OF TOMS DATA TO VOLCANIC HAZARD MITIGATION'(SENH98-0061)
 08/04/1998 - 01/31/2000 FY99: \$60,000 Total: \$90,000
Prin. Invest.: G J BLUTH
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 8796 MICHIGAN TECHNOLOGICAL UNIVERSITY 5999
 EARTH AND SPACE SCIENCES PROJECT SERVICES FOR NASA HPCC
 09/21/1999 - 09/30/2000 FY99: \$66,000 Total: \$66,000
Prin. Invest.: D MERKEY
Tech. Officer: GSFC/J R FISCHER
CASE Category: 22 - COMPUTER SCIENCE

NAG 8 1478 MICHIGAN TECHNOLOGICAL UNIVERSITY 6000
 R/S GRAVITY INDUCED SETTLING IN INTERCONNECTED LIQUID SOLID SYSTEMS
 02/18/1998 - 01/31/2002 FY99: \$82,166 Total: \$138,833
Prin. Invest.: T H COURTNEY
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 4566 MICHIGAN TECHNOLOGICAL UNIVERSITY 6001
 MODELING OF COLLISION INDUCED ABSORPTION SPECTRA OF CO2-CO2 PAIRS FOR PLANETARY ATMOSPHERE OF VEUUS
 06/02/1995 - 10/31/1997 FY99: -\$3,339 Total: \$76,608
Prin. Invest.: A BORYSOW
Tech. Officer: HQ/J BERGSTRAHL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 5186 MICHIGAN TECHNOLOGICAL UNIVERSITY 6002
 CONTRIBUTION OF VOLCANIC ACTIVITY TO THE ATMOSPHERIC
 09/03/1996 - 03/31/1998 FY99: \$0 Total: \$37,000
Prin. Invest.: G BLUTH
Tech. Officer: HQ/M BALTUCK, HQ/A C JANETOS
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 5 76 MICHIGAN TECHNOLOGICAL UNIVERSITY 6003
 COLLEEN RILEY TWO-DIMENSIONAL CHARACTERIZATION OF VOLCANIC ASH-APPLICATIONS TO REMOTE SENSING ALGO
 07/22/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: W I ROSE
Tech. Officer: GSFC/M S BURRELL
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 5 30028 MICHIGAN TECHNOLOGICAL UNIVERSITY 6004
 THE DYNAMICS OF HUMAN-DRIVEN LAND COVER CHANGE IN
 10/23/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: P DEBANKER
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30154 MICHIGAN TECHNOLOGICAL UNIVERSITY 6005
 TEMPORAL ANALYSIS OF VOLCANIC AEROSOL AND ASH TRANSPORT
 08/28/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: G BLUTH, BARKER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 869 UNIVERSITY OF MICHIGAN - ANN ARBOR 6006
 AN ADAPTIVE MULTI-GRID CODE FOR FLUID DYNAMICS BASED ON GENUINELY MULTI-DIMENSIONAL CONCEPTS
 03/25/1988 - 11/30/1997 FY99: -\$2 Total: \$615,405
Prin. Invest.: B VAN LEER, K POWELL
Tech. Officer: LARC/J L THOMAS, LARC/J C SOUTH, JR.
CASE Category: 21 - MATHEMATICS

NAG 1 1478 UNIVERSITY OF MICHIGAN - ANN ARBOR 6007
 ANALYSIS OF CONFORMAL ANTENNAS IN COMPOSITE SURFACES NLPN 92-1107
 02/05/1993 - 12/31/1997 FY99: -\$1 Total: \$275,000
Prin. Invest.: J L VOLAKIS
Tech. Officer: LARC/F B BECK
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1720 UNIVERSITY OF MICHIGAN - ANN ARBOR 6008
 COMPARISON OF DOUBLE ETALON VS. MULTIPLEXING FABRY-PEROT INTERFEROMETERS FOR DETERMINING TOTAL
 05/08/1995 - 12/31/1998 FY99: \$0 Total: \$342,776
Prin. Invest.: W B COOK, P B HAYS
Tech. Officer: LARC/A M LARAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1755 UNIVERSITY OF MICHIGAN - ANN ARBOR 6009
 THE MODELING AND EVALUATION OF THRUST LOSSES AND PERFORMANCE OF HIGH-SPEED AEROSPACE ENGINES
 09/20/1995 - 02/28/2000 FY99: \$0 Total: \$678,423
Prin. Invest.: D A CARROLL, D ALBER
Tech. Officer: LARC/J M HOELL, JR, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2042 UNIVERSITY OF MICHIGAN - ANN ARBOR 6010
 TROPOSPHERIC TRACE GAS BUDGETS: INTERACTIONS WITH AEROSOLS
 04/23/1998 - 04/22/2001 FY99: \$100,040 Total: \$205,040
Prin. Invest.: J E PENNER
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2142 UNIVERSITY OF MICHIGAN - ANN ARBOR 6011
 DEVELOPMENT AND TEST OF A 1.4 GHZ DIRECT-SAMPLING DIGITAL RADIOMETER FOR STAR AND FULLY POLARIMETRIC
 02/02/1999 - 09/30/1999 FY99: \$70,000 Total: \$70,000
Prin. Invest.: A W ENGLAND
Tech. Officer: LARC/J W JOHNSON, LARC/R W LAWRENCE
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 2181 UNIVERSITY OF MICHIGAN - ANN ARBOR 6012
 DATA-BASED CLIMATOLOGIES AND STUDY OF THE OZONE BUDGET IN THE TROPIC PAUSE
 03/31/1999 - 12/31/2001 FY99: \$20,000 Total: \$20,000
Prin. Invest.: M A CARROLL
Tech. Officer: LARC/G R MADDREA, LARC/L POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1639 UNIVERSITY OF MICHIGAN - ANN ARBOR 6013
 FLAME-VORTEX INTERACTIONS IMAGED IN MICROGRAVITY
 06/30/1994 - 06/29/1998 FY99: \$0 Total: \$554,700
Prin. Invest.: J F DRISCOLL
Tech. Officer: GRC/J E BROOKER
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1684 UNIVERSITY OF MICHIGAN - ANN ARBOR 6014
 STUDY OF POOL BOILING IN MICROGRAVITY - REWETTING FOLLOWING DRYOUT
 11/17/1994 - 12/31/1997 FY99: -\$1,935 Total: \$299,140
Prin. Invest.: H MERTE
Tech. Officer: GRC/F P CHIARAMONTE
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1861 UNIVERSITY OF MICHIGAN - ANN ARBOR 6015
 ON THE BOUNDARY CONDITIONS AT AN OSCILLATING CONTACT LINE: A PHYSICAL/NUMERICAL EXPERIMENTAL PROGRAM
 05/21/1996 - 05/20/2000 FY99: \$98,000 Total: \$313,000
Prin. Invest.: M PERLIN
Tech. Officer: GRC/M WEISLOGEL
CASE Category: 13 - PHYSICS

NAG 3 1878 UNIVERSITY OF MICHIGAN - ANN ARBOR 6016
 SOOT FORMATION IN FREELY-PROPAGATING LAMINAR PREMIXED FLAMES
 05/20/1996 - 06/30/2001 FY99: \$91,737 Total: \$265,496
Prin. Invest.: G M FAETH
Tech. Officer: GRC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1880 UNIVERSITY OF MICHIGAN - ANN ARBOR 6017
 EXPERIMENTAL INVESTIGATION OF THE EFFECTS ON MISTUING ON THE FORCED RESPONSE OF BLADE ASSEMBLY
 05/22/1996 - 04/08/1999 FY99: \$27,000 Total: \$139,121
Prin. Invest.: C PIERRE
Tech. Officer: GRC/O MEHMED, GRC/G L STEFKO
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1900 UNIVERSITY OF MICHIGAN - ANN ARBOR 6018
 A STUDY OF NUCLEATE BOILING WITH FORCED CONVECTION IN MICROGRAVITY
 07/22/1996 - 07/21/2000 FY99: \$0 Total: \$199,920
Prin. Invest.: P MERTE, NONE
Tech. Officer: GRC/F CHIARAMONTE
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1952 UNIVERSITY OF MICHIGAN - ANN ARBOR 6019
 NUMERICAL MODELING OF LIQUID-VAPOR PHASE CHANGE
 09/06/1996 - 08/14/2000 FY99: \$71,827 Total: \$188,418
Prin. Invest.: V S ARPACI
Tech. Officer: GRC/A T CHAI
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1972 UNIVERSITY OF MICHIGAN - ANN ARBOR 6020
 RELIABILITY STUDY OF HERMETIC PACKAGES FOR HIGH FREQUENCY APPLICATIONS
 11/18/1996 - 05/17/1998 FY99: -\$7,511 Total: \$27,489
Prin. Invest.: L B KATEHI
Tech. Officer: GRC/G E PONCHAK
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2048 UNIVERSITY OF MICHIGAN - ANN ARBOR 6021
 LAMINAR SOOT PROCESSES EXPERIMENT (LSP)
 05/06/1997 - 04/30/2000 FY99: \$213,876 Total: \$529,444
Prin. Invest.: G M FAETH
Tech. Officer: GRC/D URBAN
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2082 UNIVERSITY OF MICHIGAN - ANN ARBOR 6022
 STRATEGY 2000: RECRUITMENT, RETENTION, RECOGNITION; A BALANCED APPROACH TO DIVERSITY AND EXCELLENCE
 09/30/1997 - 08/23/2000 FY99: \$44,880 Total: \$109,760
Prin. Invest.: D E SCOTT, J W JONES
Tech. Officer: GRC/A GONZALEZ, GRC/S A MERRITT
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2085 UNIVERSITY OF MICHIGAN - ANN ARBOR 6023
 SI/GE K- AND KA-BAND CIRCUITS SI/GE K- AND KA- BAND CIRCUITS
 11/03/1997 - 04/30/1999 FY99: \$0 Total: \$180,000
Prin. Invest.: L B KATEHI
Tech. Officer: GRC/G E PONCHAK, GRC/S A ALTEROVITZ
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2091 UNIVERSITY OF MICHIGAN - ANN ARBOR 6024
 DEVELOPMENT OF A METHODOLOGY FOR CONDUCTING HALL THRUSTERS EMI TESTS IN METAL VACUUM
 03/12/1998 - 05/31/1999 FY99: \$0 Total: \$59,634
Prin. Invest.: A GALLIMORE
Tech. Officer: GRC/M A MANTENIEKS
CASE Category: 13 - PHYSICS

NAG 3 2134 UNIVERSITY OF MICHIGAN - ANN ARBOR 6025
 MICROSCOPIC VISUALIZATION OF FLUID FLOW IN EVAPORATION DROPLETS AND ELECTRO-OSMOTIC FLOWS
 03/03/1998 - 01/05/2002 FY99: \$80,000 Total: \$220,000
Prin. Invest.: R G LARSON
Tech. Officer: GRC/D W GRIFFIN
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2148 UNIVERSITY OF MICHIGAN - ANN ARBOR 6026
 USE OF MODERN COMPUTATIONAL AND LASER DIAGNOSTIC TOOLS TO STUDY THE THERMAL CHARACTERISTICS AND CATHODES
 04/01/1998 - 09/30/1999 FY99: \$0 Total: \$64,873
Prin. Invest.: D GALLIMORE
Tech. Officer: GRC/J S SOVEY, GRC/V K RAWLIN
CASE Category: 13 - PHYSICS

NAG 3 2162 UNIVERSITY OF MICHIGAN - ANN ARBOR 6027
 COMPUTATIONS OF BOILING IN MICROGRAVITY COMPUTATIONS OF BOILING IN MICROGRAVITY
 04/27/1998 - 02/09/2002 FY99: \$79,250 Total: \$159,250
Prin. Invest.: G TRYGGVASON, D JACQMIN
Tech. Officer: GRC/D F CHAO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2196 UNIVERSITY OF MICHIGAN - ANN ARBOR 6028
 FLUID MECHANICS OF CAPILLARY-ELASTIC INSTABILITIES IN THE MICROGRAVITY ENVIRONMENT
 09/03/1998 - 03/31/2001 FY99: \$94,766 Total: \$154,766
Prin. Invest.: J B GROTEBERG
Tech. Officer: GRC/D F CHAO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2211 UNIVERSITY OF MICHIGAN - ANN ARBOR 6029
 CHF ENHANCEMENT ON METAL-GRAPHITE COMPOSITE SURFACES
 11/19/1998 - 11/02/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: W YANG
Tech. Officer: GRC/D F CHAO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2216 UNIVERSITY OF MICHIGAN - ANN ARBOR 6030
 USE OF LASER INDUCED FLOURESCENCE TO CHARACTERIZE DISCHARGE
 CATHODE EROSIONS OF AN ION ENGINE
 01/14/1999 - 12/31/1999 FY99: \$49,999 Total: \$49,999
Prin. Invest.: A D GALLIMORE
Tech. Officer: GRC/J S SOVEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2237 UNIVERSITY OF MICHIGAN - ANN ARBOR 6031
 LONG-TERM RELIABILITY OF HIGH-SPEED SIGE/SI HETERO JUNCTION
 BIPOLAR TRANSISTORS
 02/23/1999 - 01/24/2000 FY99: \$70,000 Total: \$70,000
Prin. Invest.: P BHATTACHARYA
Tech. Officer: GRC/G PONCHAK
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 2397 UNIVERSITY OF MICHIGAN - ANN ARBOR 6032
 ANALYSIS OF IUE OBSERVATIONS OF HYDROGEN IN COMETS
 10/15/1993 - 04/30/1998 FY99: \$0 Total: \$98,856
Prin. Invest.: M R COMBI
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2790 UNIVERSITY OF MICHIGAN - ANN ARBOR 6033
 GAS DYNAMIC SIMULATIONS OF GROUPS AND CLUSTERS AND GALAXIES
 10/14/1994 - 08/31/1998 FY99: \$0 Total: \$298,740
Prin. Invest.: A E EVRARD
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2869 UNIVERSITY OF MICHIGAN - ANN ARBOR 6034
 STAR FORMATION STUDIES: DYNAMICS AND INFRARED SIGNATURES
 01/12/1995 - 07/14/2000 FY99: \$5,000 Total: \$225,000
Prin. Invest.: F C ADAMS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2876 UNIVERSITY OF MICHIGAN - ANN ARBOR 6035
 WINDOWS TO THE UNIVERSE-AN EARTH AND SPACE SCIENCE INTER-
 NET-BASED ACTIVE LEARNING SYSTEM
 01/19/1995 - 04/30/1999 FY99: \$0 Total: \$1,425,000
Prin. Invest.: R JOHNSON
Tech. Officer: GSFC/F HASLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3168 UNIVERSITY OF MICHIGAN - ANN ARBOR 6036
 BUDGET OF NITROGEN COMPOUNDS IN THE GLOBAL ATMOSPHERE:
 OBSERVATIONS-BASED CLIMATOLOGIES
 02/14/1996 - 02/28/1999 FY99: \$0 Total: \$144,800
Prin. Invest.: M A CARROLL, G BRASSEUR
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3180 UNIVERSITY OF MICHIGAN - ANN ARBOR 6037
 HIGH RESOLUTION DOPPLER IMAGER
 03/29/1996 - 03/31/1999 FY99: \$0 Total: \$1,948,111
Prin. Invest.: P B HAYS
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3247 UNIVERSITY OF MICHIGAN - ANN ARBOR 6038
 THE HOT INTERSTELLAR MEDIUM IN SPIRAL, ELLIPTICALS, AND CLUS-
 TERS OF GALAXIES
 05/30/1996 - 04/30/2000 FY99: \$270,000 Total: \$516,000
Prin. Invest.: J N BREGMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3284 UNIVERSITY OF MICHIGAN - ANN ARBOR 6039
 CORRELATED OBSERVATIONS OF MARKARIAN 421 AT X-RAY AND TEV
 ENERGIES
 07/03/1996 - 01/14/1998 FY99: -\$26 Total: \$10,774
Prin. Invest.: C AKERLOF
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3352 UNIVERSITY OF MICHIGAN - ANN ARBOR 6040
 DUST IN THE X-RAY ATMOSPHERES OF ELLIPTICAL GALAXIES
 08/09/1996 - 08/14/1999 FY99: \$0 Total: \$20,150
Prin. Invest.: J N BREGMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3401 UNIVERSITY OF MICHIGAN - ANN ARBOR 6041
 GALAXY CLUSTER EVOLUTION AND DYNAMICS AT THE PRESENT
 10/01/1996 - 09/30/1998 FY99: \$0 Total: \$125,300
Prin. Invest.: A E EVRARD
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3679 UNIVERSITY OF MICHIGAN - ANN ARBOR 6042
 A TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 01/02/1997 - 01/14/1998 FY99: -\$20 Total: \$13,981
Prin. Invest.: M F ALLER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3771 UNIVERSITY OF MICHIGAN - ANN ARBOR 6043
 GLOBAL STUDY OF THE SULFUR CYCLE INCLUDING THE INF FUEL SULFUR
 ON CLIMATE AND CLIMATE CHANGE
 03/14/1997 - 01/31/1998 FY99: -\$382 Total: \$39,618
Prin. Invest.: J E PENNER
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3849 UNIVERSITY OF MICHIGAN - ANN ARBOR 6044
 DEVELOPMENT OF SAR ALGORITHM FOR MAPPING SOIL MOISTURE BIO-
 MASS
 02/03/1997 - 09/30/1998 FY99: -\$153 Total: \$180,748
Prin. Invest.: F T ULABY
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3874 UNIVERSITY OF MICHIGAN - ANN ARBOR 6045
 INTESTINAL ADAPTATION IN MICROGRAVITY
 02/10/1997 - 03/31/1998 FY99: -\$950 Total: \$98,436
Prin. Invest.: G L AMIDON
Tech. Officer: GSFC/M E FREY
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4007 UNIVERSITY OF MICHIGAN - ANN ARBOR 6046
 DYNAMICAL VARIATIONS IN THE MESOSPHERE AND LOWER T AND INTER-ANNUAL VARIABILITY
 03/06/1997 - 04/30/2000 FY99: \$109,045 Total: \$213,729
 Prin. Invest.: D D SKINNER
 Tech. Officer: GSFC/M M MELLOTT
 CASE Category: 13 - PHYSICS

NAG 5 4101 UNIVERSITY OF MICHIGAN - ANN ARBOR 6047
 BACKGROUND NOX SOURCES IN THE UPPER TROPOSPHERE: LIGHTNING, CONVECTION, AND STRATOSPHERE/TROPOSPHERE
 03/12/1997 - 10/14/1998 FY99: \$0 Total: \$25,400
 Prin. Invest.: J E PENNER
 Tech. Officer: GSFC/R W STEWART
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4243 UNIVERSITY OF MICHIGAN - ANN ARBOR 6048
 NASA CENTER FOR SPACE TERAHERTZ TECHNOLOGY
 04/18/1997 - 10/31/1997 FY99: \$0 Total: \$38,400
 Prin. Invest.: D T ULABY
 Tech. Officer: GSFC/R AVANT
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4244 UNIVERSITY OF MICHIGAN - ANN ARBOR 6049
 MONITORING OF TWO BLAZARS WITH FREQUENCY-SIMULTANEOUS MULTIWAVELENGTH MONITORING OF THE PROMINENT BLAZER
 04/03/1997 - 04/14/1999 FY99: \$0 Total: \$14,154
 Prin. Invest.: M ALLER
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 4264 UNIVERSITY OF MICHIGAN - ANN ARBOR 6050
 THEORETICAL STUDIES AND SATELLITE DATA ANALYSIS OF LOWER THERMOSPHERE
 04/07/1997 - 04/14/2000 FY99: \$129,411 Total: \$257,488
 Prin. Invest.: D L KILLEEN
 Tech. Officer: GSFC/M M MELLOTT
 CASE Category: 13 - PHYSICS

NAG 5 4271 UNIVERSITY OF MICHIGAN - ANN ARBOR 6051
 STUDIES OF THE THERMOSPHERIC RESPONSE TO GEOMAGNETIC MINIMUM CONDITIONS
 04/03/1997 - 04/30/2000 FY99: \$113,268 Total: \$219,299
 Prin. Invest.: D BURNS
 Tech. Officer: GSFC/M M MELLOTT
 CASE Category: 13 - PHYSICS

NAG 5 4315 UNIVERSITY OF MICHIGAN - ANN ARBOR 6052
 MULTISCALE MODELING OF COMETARY ATMOSPHERES
 04/12/1997 - 09/30/1999 FY99: \$0 Total: \$67,382
 Prin. Invest.: P I GOMBOSI
 Tech. Officer: GSFC/J BERGSTRAHL
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4379 UNIVERSITY OF MICHIGAN - ANN ARBOR 6053
 MARS 96 PARTICIPATING SCIENTIST: STABILITY OF THE
 04/24/1997 - 05/31/1999 FY99: \$0 Total: \$20,000
 Prin. Invest.: P K ATREYA
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4381 UNIVERSITY OF MICHIGAN - ANN ARBOR 6054
 STUDIES OF TENOUS PLANETARY ATMOSPHERES
 04/29/1997 - 12/31/1999 FY99: \$50,000 Total: \$150,000
 Prin. Invest.: D R COMBI
 Tech. Officer: GSFC/D BOGAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4483 UNIVERSITY OF MICHIGAN - ANN ARBOR 6055
 CORRELATED OBSERVATIONS OF MARKARIAN 421 AT X-RAY FREQUENCIES
 05/07/1997 - 04/30/1998 FY99: \$0 Total: \$25,105
 Prin. Invest.: C W AKERLOF
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 4556 UNIVERSITY OF MICHIGAN - ANN ARBOR 6056
 A PROPOSAL FOR THE CONTINUED PARTICIPATION OF L. 96 ELISMA INVESTIGATION
 05/29/1997 - 04/30/1998 FY99: \$0 Total: \$15,000
 Prin. Invest.: D BRACE
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4589 UNIVERSITY OF MICHIGAN - ANN ARBOR 6057
 A PROGRAM FOR RESEARCH IN PLANETARY ATMOSPHERES: P COUPLED CLOUD PHYSICS
 05/23/1997 - 06/30/2000 FY99: \$141,336 Total: \$249,000
 Prin. Invest.: P K ATREYA
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4714 UNIVERSITY OF MICHIGAN - ANN ARBOR 6058
 DISTRIBUTION OF GASES IN THE INNER COMAE OF COMETS
 06/23/1997 - 10/31/1999 FY99: \$99,923 Total: \$286,210
 Prin. Invest.: D R COMBI
 Tech. Officer: GSFC/D BOGAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4770 UNIVERSITY OF MICHIGAN - ANN ARBOR 6059
 HOW LIFE AFFECTS THE GEOCHEMICAL CYCLE OF CARBON
 06/09/1997 - 12/31/1997 FY99: \$0 Total: \$100,000
 Prin. Invest.: D G WALKER
 Tech. Officer: GSFC/M A MEYER
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4771 UNIVERSITY OF MICHIGAN - ANN ARBOR 6060
 STUDIES OF INNER MAGNETOSPHERIC PROCESSES AND THEIR UNDERLYING ATMOSPHERE AND IONOSPHERE
 06/09/1997 - 04/30/2000 FY99: \$95,685 Total: \$262,693
 Prin. Invest.: D U KOZYRA
 Tech. Officer: GSFC/M M MELLOTT
 CASE Category: 13 - PHYSICS

NAG 5 4855 UNIVERSITY OF MICHIGAN - ANN ARBOR 6061
 APPLICATION OF MC-ICPMS TO THE MEASUREMENT OF ISOTOPES OF MO, RU, SN, TE AND W
 06/23/1997 - 03/31/1999 FY99: \$0 Total: \$44,957
 Prin. Invest.: D N HALLIDAY
 Tech. Officer: GSFC/J M BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4912 UNIVERSITY OF MICHIGAN - ANN ARBOR 6062
 MULTIDIMENSIONAL MHD MODEL STUDIES OF THE IONOSPHERE
 07/02/1997 - 03/31/2000 FY99: \$81,000 Total: \$250,000
Prin. Invest.: D F NAGY
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4916 UNIVERSITY OF MICHIGAN - ANN ARBOR 6063
 FULLY IMPLANTABLE INTEGRATED SILICON BIOTELEMETRY M
 07/07/1997 - 04/30/1999 FY99: \$0 Total: \$247,516
Prin. Invest.: K NAJAFI
Tech. Officer: GSFC/G FOGLEMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4939 UNIVERSITY OF MICHIGAN - ANN ARBOR 6064
 DIGITAL TOPOGRAPHY FROM SAR INTERFEROMETRY: DETERMINATION OF VEGETATION HEIGHT
 06/23/1997 - 09/15/1998 FY99: \$0 Total: \$110,777
Prin. Invest.: K SARABANDI
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5030 UNIVERSITY OF MICHIGAN - ANN ARBOR 6065
 SOLAR AND MAGNETOSPHERIC INPUTS TO THE MLTJ REGION
 03/03/1995 - 02/28/2000 FY99: \$105,000 Total: \$310,974
Prin. Invest.: J KOZYRA
Tech. Officer: GSFC/R PLESS
CASE Category: 13 - PHYSICS

NAG 5 5049 UNIVERSITY OF MICHIGAN - ANN ARBOR 6066
 TIDI - A TIMED DOPPLER INTERFEROMETER NEW AWARD
 12/04/1995 - 01/31/2000 FY99: \$0 Total: \$2,249,997
Prin. Invest.: T L KILLEN
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5059 UNIVERSITY OF MICHIGAN - ANN ARBOR 6067
 HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) FIRST YEAR OF FUNDING
 05/01/1996 - 10/31/1999 FY99: \$0 Total: \$630,000
Prin. Invest.: G TARLE
Tech. Officer: GSFC/H C NEDDELMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5101 UNIVERSITY OF MICHIGAN - ANN ARBOR 6068
 A DEEP REALTIME SEARCH FOR THE OPTICAL COUNTER- PARTS OF BATSE & HETE EVENTS
 02/11/1997 - 12/31/1999 FY99: \$145,551 Total: \$499,427
Prin. Invest.: C AKERLOF
Tech. Officer: GSFC/H C NEDDELMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5121 UNIVERSITY OF MICHIGAN - ANN ARBOR 6069
 HALE-BOPP FUNDING FOR THE FIRST YEAR OF THE GRANT
 02/06/1997 - 02/11/2000 FY99: \$182,329 Total: \$452,329
Prin. Invest.: J CLARK
Tech. Officer: GSFC/B J FLOWERS
CASE Category: 13 - PHYSICS

NAG 5 5173 UNIVERSITY OF MICHIGAN - ANN ARBOR 6070
 STUDY OF AN IMAGING CALORIMETER FOR ACCESS FUNDING FOR FIRST YEAR OF GRANT
 03/05/1998 - 12/31/1999 FY99: \$121,000 Total: \$225,000
Prin. Invest.: G TARLE
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5230 UNIVERSITY OF MICHIGAN - ANN ARBOR 6071
 GRANT NAG5-5230 - HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) PI PROF. GREGORY TARLE
 03/16/1999 - 03/11/2002 FY99: \$215,000 Total: \$215,000
Prin. Invest.: G TARLE
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6083 UNIVERSITY OF MICHIGAN - ANN ARBOR 6072
 GLOBAL OBSERVATION OF PLANETARY-SCALE WAVES IN THE THERMOSPHERE FROM HRDI AND WINDII
 08/26/1997 - 08/14/1999 FY99: \$0 Total: \$78,158
Prin. Invest.: D S LIEBERMAN
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6122 UNIVERSITY OF MICHIGAN - ANN ARBOR 6073
 SOHO GUEST INVESTIGATOR STUDY OF HYDROGEN LYMAN-AL WITH SWAN
 08/11/1997 - 08/14/2000 FY99: \$0 Total: \$94,236
Prin. Invest.: D R COMBI
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6187 UNIVERSITY OF MICHIGAN - ANN ARBOR 6074
 STUDIES FOR THE LOSS OF ATOMIC AND MOLECULAR SPECIES
 07/30/1997 - 06/30/1999 FY99: \$0 Total: \$60,546
Prin. Invest.: D R COMBI
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6203 UNIVERSITY OF MICHIGAN - ANN ARBOR 6075
 AN INTEGRATED MODELING STUDY FOR COORDINATED OBSERVATIONS OF H₂O, OH, AND H₂O + EMISSIONS IN THE CO
 10/17/1997 - 08/31/2000 FY99: \$0 Total: \$70,954
Prin. Invest.: D R COMBI
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 6425 UNIVERSITY OF MICHIGAN - ANN ARBOR 6076
 ESTIMATING WATER STORED IN SOIL & VEGETATION USING LSP MODEL SOIL WETNESS & SATELLITE RADIO BRIGHTNESS
 10/06/1997 - 09/30/1999 FY99: \$0 Total: \$325,200
Prin. Invest.: A ENGLAND
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6471 UNIVERSITY OF MICHIGAN - ANN ARBOR 6077
 ENERGETIC PARTICLE PROPAGATION IN THE NEW MODEL FOR THE HELIOSPHERIC MAGNETIC FIELD
 11/17/1997 - 10/31/2000 FY99: \$61,566 Total: \$120,196
Prin. Invest.: T ZURBUCHEN
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6709 UNIVERSITY OF MICHIGAN - ANN ARBOR 6078
 CONTINUED SCIENTIFIC STUDIES OF THE MIDDLE ATMOSPHERE BY THE
 HIGH-RESOLUTION DOPPLER IMAGER (HRES-DI)
 12/12/1997 - 12/14/1999 FY99: \$256,979 Total: \$536,049
Prin. Invest.: D HAYS
Tech. Officer: GSFC/C JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6827 UNIVERSITY OF MICHIGAN - ANN ARBOR 6079
 MODELING OF COMETARY ATMOSPHERES
 01/15/1998 - 12/31/1999 FY99: \$80,770 Total: \$157,640
Prin. Invest.: T GOMBOSI
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 6883 UNIVERSITY OF MICHIGAN - ANN ARBOR 6080
 COMPARATIVE STUDY OF JUPITER'S AURORA: HST UV IMAGES AND
 SPECTRA AND GALILEO DATA
 01/30/1998 - 12/31/1999 FY99: \$52,000 Total: \$102,000
Prin. Invest.: J T CLARKE
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 6960 UNIVERSITY OF MICHIGAN - ANN ARBOR 6081
 APPLICATION FOR SUPPORT 1998 SYMPOSIUM ON RADIATION MEASUREMENTS
 AND APPLICATIONS
 02/09/1998 - 07/31/1999 FY99: \$0 Total: \$10,000
Prin. Invest.: G KNOLL
Tech. Officer: GSFC/J I TROMBKA
CASE Category: 11 - ASTRONOMY

NAG 5 7032 UNIVERSITY OF MICHIGAN - ANN ARBOR 6082
 MODELS OF RELATIVISTIC EXTRAGALACTIC JETS AND THE INTERPRETATION
 OF VSO DATA - ATP
 02/17/1998 - 02/14/2000 FY99: \$0 Total: \$40,700
Prin. Invest.: P A HUGHES
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7108 UNIVERSITY OF MICHIGAN - ANN ARBOR 6083
 NUMERICAL SIMULATIONS OF GROUPS AND CLUSTERS OF GALAXIES -
 ATP
 03/13/1998 - 03/31/1999 FY99: \$0 Total: \$25,000
Prin. Invest.: A E EVRARD
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7322 UNIVERSITY OF MICHIGAN - ANN ARBOR 6084
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 04/24/1998 - 04/30/1999 FY99: \$0 Total: \$10,041
Prin. Invest.: M F ALLER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7474 UNIVERSITY OF MICHIGAN - ANN ARBOR 6085
 HIGH RESOLUTION DOPPLER IMAGER - OPERATIONS AND ALGORITHM-
 MAINTENANCE
 06/23/1998 - 06/30/2000 FY99: \$240,667 Total: \$354,834
Prin. Invest.: P B HAYS
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7553 UNIVERSITY OF MICHIGAN - ANN ARBOR 6086
 APPLICATION OF MC-ICPMS TO THE MEASUREMENT OF ISOTOPE ANOMALIES
 IN ZR, MO, RU, SN, TE AND W
 06/23/1998 - 06/30/2000 FY99: \$85,000 Total: \$120,000
Prin. Invest.: A N HALLIDAY
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7557 UNIVERSITY OF MICHIGAN - ANN ARBOR 6087
 GGS/POLAR TIDE CO-INVESTIGATOR PROGRAM MO&DA SUPPLEMENTAL
 FUNDS
 06/25/1998 - 06/30/2000 FY99: \$50,000 Total: \$90,000
Prin. Invest.: A NAGEY
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 99 - MULTI-INTERDISCIPLINARY, OTHER

NAG 5 7565 UNIVERSITY OF MICHIGAN - ANN ARBOR 6088
 XTE PROPOSAL - CONTINUED RXTE OBSERVATIONS OF THREE BLAZARS
 (30264)
 07/09/1998 - 10/30/1999 FY99: \$0 Total: \$1,250
Prin. Invest.: M ALLER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7569 UNIVERSITY OF MICHIGAN - ANN ARBOR 6089
 PROVIDING THE GLOBAL MODELING INITIATIVE WITH MODELING AND
 ANALYSIS OF AEROSOLS EFFECTS
 07/09/1998 - 07/31/2000 FY99: \$101,151 Total: \$151,151
Prin. Invest.: J E PENNER
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7681 UNIVERSITY OF MICHIGAN - ANN ARBOR 6090
 DEFINING A CLIMATOLOGY AND THE EFFECTS OF ABSORBING AEROSOLS:
 MODELS AND MEASUREMENTS
 09/04/1998 - 08/31/1999 FY99: \$60,000 Total: \$160,000
Prin. Invest.: J PENNER
Tech. Officer: GSFC/M I MISHCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7765 UNIVERSITY OF MICHIGAN - ANN ARBOR 6091
 INVESTIGATION OF SOLAR WIND - MAGNETOSPHERE - IONOSPHERE
 COUPLING USING POLAR UVI AND OTHER COORDINATE
 01/06/1999 - 12/31/1999 FY99: \$70,000 Total: \$70,000
Prin. Invest.: R CLAUSER
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 7858 UNIVERSITY OF MICHIGAN - ANN ARBOR 6092
 MEASUREMENT OF ABSOLUTE DIFFERENTIAL CROSS SECTIONS FOR THE
 COLLISIONS OF ELECTRONS WITH PLANETARY
 01/05/1999 - 12/31/1999 FY99: \$80,000 Total: \$80,000
Prin. Invest.: D SHYN
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7860 UNIVERSITY OF MICHIGAN - ANN ARBOR 6093
 THE SOLAR SYSTEM BEYOND PLUTO
 01/06/1999 - 12/31/1999 FY99: \$62,260 Total: \$62,260
Prin. Invest.: D M BERNSTEIN
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 8080 UNIVERSITY OF MICHIGAN - ANN ARBOR 6094
 STATE-TO-STATE RATE CONSTANTS FOR COMPUTATION OF NON-LTE
 INFRARED RADIATIVE TRANSFER IN THE M
 01/15/1999 - 03/31/2000 FY99: \$95,000 Total: \$95,000
Prin. Invest.: D R BARKER
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 8238 UNIVERSITY OF MICHIGAN - ANN ARBOR 6095
 MASSIVE BLACK HOLES AND THE CENTERS OF GALAXIES (LTSA98)
 02/25/1999 - 02/28/2000 FY99: \$73,579 Total: \$73,579
Prin. Invest.: D O RICHSTONE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8458 UNIVERSITY OF MICHIGAN - ANN ARBOR 6096
 MODELING OF X-RAY CLUSTERS (ATP 98)
 04/15/1999 - 04/14/2001 FY99: \$81,000 Total: \$81,000
Prin. Invest.: A E EVRARD
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8494 UNIVERSITY OF MICHIGAN - ANN ARBOR 6097
 EXTEND THE DEVELOPMENT OF THE SPACE WEATHER TOPIC, AND ALSO
 THE SPACE MISSIONS SECTION TO INCLUDE
 05/04/1999 - 01/31/2000 FY99: \$150,000 Total: \$150,000
Prin. Invest.: R M JOHNSON
Tech. Officer: GSFC/A F HASLER
CASE Category: 11 - ASTRONOMY

NAG 5 8577 UNIVERSITY OF MICHIGAN - ANN ARBOR 6098
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 05/27/1999 - 05/31/2000 FY99: \$4,899 Total: \$4,899
Prin. Invest.: M F ALLER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8630 UNIVERSITY OF MICHIGAN - ANN ARBOR 6099
 HIERARCHICAL INVESTIGATION OF SOCIOECONOMIC DRIVER OF DECA-
 DAL SCALE LAND-COVER CHANGES IN THE UPPER
 08/11/1999 - 07/31/2000 FY99: \$73,879 Total: \$73,879
Prin. Invest.: D G BROWN
Tech. Officer: GSFC/J RANSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8661 UNIVERSITY OF MICHIGAN - ANN ARBOR 6100
 MOISTURE TRANSPORT AND RADIOBRIGHTNESS MODELS FOR COMPLEX
 VEGETATION
 07/01/1999 - 06/30/2000 FY99: \$77,050 Total: \$77,050
Prin. Invest.: A W ENGLAND
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8715 UNIVERSITY OF MICHIGAN - ANN ARBOR 6101
 DYNAMICS IN THE COMET ENVIRONMENT
 08/03/1999 - 07/31/2000 FY99: \$24,000 Total: \$24,000
Prin. Invest.: D J SCHEERES
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8719 UNIVERSITY OF MICHIGAN - ANN ARBOR 6102
 HIERARCHICAL INVESTIGATION OF SOCIOECONOMIC DRIVER S OF DECA-
 DAL SCALE LAND-COVER CHANGES IN THE UPPER
 08/02/1999 - 07/31/2000 FY99: \$51,250 Total: \$51,250
Prin. Invest.: D G BROWN
Tech. Officer: GSFC/J RANSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1250 UNIVERSITY OF MICHIGAN - ANN ARBOR 6103
 STUDY OF CONFINEMENT AND PROPULSION CHARACTERISTICS
 OF GAS DYNAMIC MIRROR FUSION ROCKET
 12/06/1996 - 09/09/1999 FY99: \$15,000 Total: \$207,276
Prin. Invest.: T KAMMASH, W GETTY
Tech. Officer: MSFC/W J EMRICH
CASE Category: 13 - PHYSICS

NAG 8 1612 UNIVERSITY OF MICHIGAN - ANN ARBOR 6104
 PROCEEDS, PHASE C
 05/21/1999 - 05/20/2000 FY99: \$313,636 Total: \$313,636
Prin. Invest.: B E GILCHRIST
Tech. Officer: MSFC/L CURTIS
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 9 1167 UNIVERSITY OF MICHIGAN - ANN ARBOR 6105
 DEVELOP ADVANCED MILLIMETERWAVE INTERFEROMETER FOR
 PLASMA DIAGNOSTICS
 09/22/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: B E GILCHRIST
Tech. Officer: JSC/F R CHANG-DIAZ
CASE Category: 42 - ASTRONAUTICAL ENGR

NAGW 3962 UNIVERSITY OF MICHIGAN - ANN ARBOR 6106
 MULTIDIMENSIONAL MHD MODEL STUDIES OF THE IONOSPHERES OF
 VENUS AND MARS
 05/13/1994 - 03/31/1998 FY99: -\$1 Total: \$242,220
Prin. Invest.: A NAGY
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4175 UNIVERSITY OF MICHIGAN - ANN ARBOR 6107
 DEVELOPMENT OF THE SPACE TETHERED INSTRUMENT CONCEPT FOR
 ITM SCIENCE
 10/28/1994 - 06/30/1998 FY99: \$0 Total: \$160,000
Prin. Invest.: B GILCHRIST
Tech. Officer: HQ/M M MELLOTT, HQ/J D BROHLIN
CASE Category: 13 - PHYSICS

NAGW 4446 UNIVERSITY OF MICHIGAN - ANN ARBOR 6108
 ANALYSIS OF THE IUE SPECTRA OBTAINED DURING THE SH OEMAKER
 LEVY ENCOUNTER
 05/10/1995 - 09/30/1998 FY99: \$0 Total: \$114,000
Prin. Invest.: W HARRIS
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4555 UNIVERSITY OF MICHIGAN - ANN ARBOR 6109
 DIGITAL TOPOGRAPHY FROM SAR INTERFEROMETRY: DETERMINATION
 OF AND CORRECTION FOR VEGETATION HEIGHT
 06/06/1995 - 03/14/1998 FY99: -\$3,850 Total: \$193,973
Prin. Invest.: K SARABANDI, M C DOBSON, J VANZYL
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4611 UNIVERSITY OF MICHIGAN - ANN ARBOR 6110
 STUDIES OF INNER MAGNETOSPHERIC PROCESS AND COUPLING TO THE
 UNDERLYING ATMOSPHERE
 08/02/1995 - 10/31/1997 FY99: -\$706 Total: \$149,294
Prin. Invest.: J U KOZYRA
Tech. Officer: HQ/J BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4704 UNIVERSITY OF MICHIGAN - ANN ARBOR 6111
 AN INNOVATIVE MINIATURE HIGH RESOLUTION FABRY-PEROT
 SPECTROMETER FOR PLANETARY ATMOSPHERIC RESEARCH
 08/24/1995 - 06/30/1998 FY99: \$0 Total: \$180,249
Prin. Invest.: W COOK
Tech. Officer: HQ/T KOSTIUK
CASE Category: 11 - ASTRONOMY

NAGW 5053 UNIVERSITY OF MICHIGAN - ANN ARBOR 6112
 GLOBAL OBSERVATIONS OF PLANETARY-SCALE WAVES
 05/17/1996 - 04/01/1998 FY99: \$0 Total: \$71,792
Prin. Invest.: R S LIEBERMAN
Tech. Officer: HQ/M M MELLOTT, HQ/G L WITHBROE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG13 99024 UNIVERSITY OF MICHIGAN - ANN ARBOR 6113
 FOREST STRUCTURE FROM MULTI-SPECTRAL FUSION SAME
 08/25/1999 - 08/19/2000 FY99: \$87,525 Total: \$87,525
Prin. Invest.: M DOBSON
Tech. Officer: SSC/R MCKELLIP
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 1 18290 UNIVERSITY OF MICHIGAN - ANN ARBOR 6114
 HALOE SCIENTIFIC INVESTIGATION
 05/08/1986 - 09/30/1997 FY99: -\$29,862 Total: \$785,043
Prin. Invest.: S R DRAYSON
Tech. Officer: LARC/E M SULLIVAN, LARC/J M RUSSELL III
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 30119 UNIVERSITY OF MICHIGAN - ANN ARBOR 6115
 SCIENTIFIC INTERPRETATION OF GPMS DATA
 06/15/1987 - 04/30/1999 FY99: \$0 Total: \$344,712
Prin. Invest.: S K ATREYA
Tech. Officer: GSFC/J RICHARDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 30943 UNIVERSITY OF MICHIGAN - ANN ARBOR 6116
 ELECTRONICS PACKAGE FOR THE COMET RENDEZVOUS ASTEROID FLYBY
 NEUTRAL GAS ION MASS SPECTROMETER
 02/25/1991 - 09/30/1999 FY99: \$0 Total: \$3,029,283
Prin. Invest.: G CARIGNAN
Tech. Officer: GSFC/R L FROST
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 30955 UNIVERSITY OF MICHIGAN - ANN ARBOR 6117
 ELECTRONICS PACKAGE FOR THE HUYGENS PROBE; GAS CHROMATO-
 GRAPH MASS SPECTROMETER
 04/08/1991 - 07/31/1999 FY99: \$0 Total: \$3,635,845
Prin. Invest.: G CARIGNAN
Tech. Officer: GSFC/R L FROST
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 32361 UNIVERSITY OF MICHIGAN - ANN ARBOR 6118
 CASSINI/HUYGENS GAS CHROMATOGRAPH MASS SPECTROMETER (GC-
 MS) INVESTIGATION
 05/05/1994 - 11/14/1998 FY99: \$0 Total: \$150,413
Prin. Invest.: S ATREYA
Tech. Officer: GSFC/J RICHARDS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 32989 UNIVERSITY OF MICHIGAN - ANN ARBOR 6119
 PROVIDE ENGINEERING SUPPORT IN THE DEFINITION DESIGN AND TEST
 OF THE PLANET-B NMS
 01/25/1996 - 09/30/1999 FY99: \$0 Total: \$1,352,255
Prin. Invest.: G CARIGNAN
Tech. Officer: GSFC/S WAY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 99131 UNIVERSITY OF MICHIGAN - ANN ARBOR 6120
 ANALOG ELECTRONICS FOR CHEMICAL ANALYSIS OF RELEASED
 GAS EXPERIMENT (CHARGE)
 03/29/1999 - 06/30/1999 FY99: \$78,000 Total: \$78,000
Prin. Invest.: P MAHAFFY
Tech. Officer: GSFC/J LOHR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 5 99174 UNIVERSITY OF MICHIGAN - ANN ARBOR 6121
 PROVIDE SUPPORT, DESIGN, DEVELOPMENT OF THE NGIMS EXPERIMENT
 FOR THE COMET NUCLEUS TOUR (CONTOUR)
 04/02/1999 - 07/03/2002 FY99: \$100,000 Total: \$100,000
Prin. Invest.: G ARIGNAN
Tech. Officer: GSFC/J RICHARDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 37108 UNIVERSITY OF MICHIGAN - ANN ARBOR 6122
 STUDY ENTITLED "RESEARCH ON ORBITAL PLASMA-ELECTRODYNAMICS
 (ROPE)."
 04/14/1987 - 12/31/1999 FY99: \$0 Total: \$100,801
Prin. Invest.: B GILCHRIST
Tech. Officer: MSFC/M W CASTLEMANN, MSFC/R HOLDER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 39381 UNIVERSITY OF MICHIGAN - ANN ARBOR 6123
 SHUTTLE ELECTRODYNAMIC TETHER SYSTEM
 06/26/1992 - 09/30/1998 FY99: \$0 Total: \$5,803,590
Prin. Invest.: B GILCHRIST, B E GILCHRIST
Tech. Officer: MSFC/M CASTLEMANN
CASE Category: 13 - PHYSICS

NAS 8 99127 UNIVERSITY OF MICHIGAN - ANN ARBOR 6124
 R/S ICARUS SATELLITE FOR PROSEDS
 06/23/1999 - 02/22/2001 FY99: \$231,816 Total: \$231,816
Prin. Invest.: B E GILCHRIST
Tech. Officer: MSFC/K J WELZYN
CASE Category: 42 - ASTRONAUTICAL ENGR

NAS 8 99128 UNIVERSITY OF MICHIGAN - ANN ARBOR 6125
 RESEARCH ENTITLED PROCEEDS UMPS PHASE D & E
 07/30/1999 - 11/29/2001 FY99: \$604,650 Total: \$604,650
Prin. Invest.: B GILCHRIST
Tech. Officer: MSFC/J L BALATICE, MSFC/L JOHNSON
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 2 856 UNIVERSITY OF MICHIGAN - ANN ARBOR 6126
 EFFECTS OF MICROGRAVITY ON DEVELOPMENT OF THIGH MUSCLES
 05/25/1994 - 12/31/1999 FY99: \$0 Total: \$384,998
Prin. Invest.: K I CLARK, K F BARALD
Tech. Officer: ARC/D A REISS-BUBENHEIM, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 3 474 UNIVERSITY OF MICHIGAN - ANN ARBOR 6127
 INVESTIGATION OF DROOP FORMATION BY VORTEX RING IN MICROGRAVITY
 05/20/1996 - 05/28/2000 FY99: \$89,965 Total: \$266,337
Prin. Invest.: L P BERNAL
Tech. Officer: GRC/J B MCGUILLEN
CASE Category: 46 - MECHANICAL ENGR

NCC 3 482 UNIVERSITY OF MICHIGAN - ANN ARBOR 6128
 RADIANT EXTINCTION OF GASEOUS DIFFUSION FLAMES
 06/15/1996 - 12/14/2000 FY99: \$88,000 Total: \$267,000
Prin. Invest.: A ATREYA
Tech. Officer: GRC/K SACKSTEADER
CASE Category: 13 - PHYSICS

NCC 3 656 UNIVERSITY OF MICHIGAN - ANN ARBOR 6129
 FLAME VORTEX INTERACTIONS IN MICROGRAVITY TO ASSESS THE THEORY OF FLAME STRETCH
 01/12/1999 - 12/03/2002 FY99: \$88,500 Total: \$88,500
Prin. Invest.: J F DRISCOLL
Tech. Officer: GRC/J E BROOKER
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 661 UNIVERSITY OF MICHIGAN - ANN ARBOR 6130
 FLOW/SOOT-FORMATION IN NONBOUYANT LAMINAR DIFFUSION FLAMES
 01/21/1999 - 12/29/2002 FY99: \$67,490 Total: \$67,490
Prin. Invest.: G M FAETH
Tech. Officer: GRC/K SACKSTEADER
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 663 UNIVERSITY OF MICHIGAN - ANN ARBOR 6131
 TURBULENT FLAME PROCESSES VIA VORTEX-RING DIFFUSION FLAME INTERACTION
 01/15/1999 - 11/30/2002 FY99: \$75,626 Total: \$75,626
Prin. Invest.: W DAHM
Tech. Officer: GRC/K R SACKSTEADER
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 723 UNIVERSITY OF MICHIGAN - ANN ARBOR 6132
 GAS SEPARATION & PRESSURIZATION FOR EXTRATERRESTRIAL EXPLORATION
 07/07/1999 - 12/31/2001 FY99: \$20,000 Total: \$20,000
Prin. Invest.: M KAVIANY
Tech. Officer: GRC/E S NELSON
CASE Category: 49 - ENGINEERING, OTHER

NCC 5 146 UNIVERSITY OF MICHIGAN - ANN ARBOR 6133
 RESEARCH FOR GRAND CHALLENGE APPLICATIONS
 08/02/1996 - 12/31/1999 FY99: \$240,000 Total: \$1,400,000
Prin. Invest.: T GOMBOSI
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 5 296 UNIVERSITY OF MICHIGAN - ANN ARBOR 6134
 RADAR REMOTE SENSING OF LAND-COVER AND BIOMASS IN THE AMAZON
 06/16/1998 - 12/31/1999 FY99: \$201,789 Total: \$326,502
Prin. Invest.: M C DOBSON
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 383 UNIVERSITY OF MICHIGAN - ANN ARBOR 6135
 COLLABORATIVE EDUCATION AND PUBLIC OUTREACH ACTIVITIES BY WINDOWS TO THE UNIVERSE PROJECT IN SUPPORT
 02/24/1999 - 02/28/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: L FISK
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NCC 8 181 UNIVERSITY OF MICHIGAN - ANN ARBOR 6136
 GLOBAL SIMULATIONS OF CORE PLASMA DENSITIES, COMPOSITION AND TEMPERATURE. NASA NRA98-OSS-03.
 06/07/1999 - 06/06/2002 FY99: \$10,931 Total: \$10,931
Prin. Invest.: M LIEMOHN
Tech. Officer: MSFC/D GALLAGHER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 2 52215 UNIVERSITY OF MICHIGAN - ANN ARBOR 6137
 GROUPING RULES IN CLASSIFIER SYSTEMS TOWARDS THE EVOLUTION OF HIERARCHICAL ORGANIZATION
 07/16/1996 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: J H HOLLAND
Prin. Invest.: NONE
Tech. Officer: ARC/P D LAIRD
CASE Category: 45 - ELECTRICAL ENGR

NGT 2 52249 UNIVERSITY OF MICHIGAN - ANN ARBOR 6138
 AN ADAPTIVE CARTESIAN METHOD FOR SOLVING THREE-DIMENSIONAL FLOWS PAST MOVING & DEFORMING GEOMETRIES
 08/28/1998 - 08/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: K G POWELL
Tech. Officer: ARC/M J AFTOSMIS, ARC/T PULLIAM
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 2 52257 UNIVERSITY OF MICHIGAN - ANN ARBOR 6139
 SEARCHING EXTRASOLAR PLANETS USING DIFFERENTIAL PHOTOMETRY
 07/23/1999 - 07/14/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: F C ADAMS
Tech. Officer: ARC/J J LISSAUER
CASE Category: 11 - ASTRONOMY

NGT 3 52311 UNIVERSITY OF MICHIGAN - ANN ARBOR 6140
 A PROPOSAL TO DEVELOP CATHODE TECHNOLOGY FOR SUB-KILOWATT STATIONARY PLASMA THRUSTERS
 06/21/1996 - 06/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: A D GALLIMORE
Tech. Officer: GRC/F MONTEGANI
CASE Category: 49 - ENGINEERING, OTHER

NGT 3 52319 UNIVERSITY OF MICHIGAN - ANN ARBOR 6141
 GRADUATE STUDENT RESEARCHERS PROGRAM
 08/06/1996 - 08/14/1999 FY99: \$0 Total: \$66,000
 Prin. Invest.: S CECCIO
 Tech. Officer: GRC/D MONTEGANI
 CASE Category: 46 - MECHANICAL ENGR

NGT 3 52331 UNIVERSITY OF MICHIGAN - ANN ARBOR 6142
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/10/1997 - 07/31/1999 FY99: \$0 Total: \$44,000
 Prin. Invest.: A K GOSH
 Tech. Officer: GRC/F J MONTEGANI
 CASE Category: 49 - ENGINEERING, OTHER

NGT 3 52339 UNIVERSITY OF MICHIGAN - ANN ARBOR 6143
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT
 RESEARCHERS PROGRAM
 09/17/1997 - 05/31/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: D PAULIDIS
 Tech. Officer: GRC/F J MONTEGANI
 CASE Category: 49 - ENGINEERING, OTHER

NGT 3 52348 UNIVERSITY OF MICHIGAN - ANN ARBOR 6144
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT
 RESEARCHERS PROGRAM
 06/15/1999 - 05/31/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: A GALLIMORE
 Tech. Officer: GRC/F J MONTEGANI
 CASE Category: 49 - ENGINEERING, OTHER

NGT 3 52349 UNIVERSITY OF MICHIGAN - ANN ARBOR 6145
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT
 RESEARCH PROGRAM
 06/23/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: A D GALLIMORE
 Tech. Officer: GRC/F J MONTEGANI
 CASE Category: 49 - ENGINEERING, OTHER

NGT 4 52404 UNIVERSITY OF MICHIGAN - ANN ARBOR 6146
 DESCRIPTION OF CONTRACT GRADUATE STUDENT RESEARCHERS PRO-
 GRAM
 06/10/1997 - 08/01/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: D BERNSTEIN
 Tech. Officer: DFRC/K K GUPTA, DFRC/L S VOELKER
 CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 27 UNIVERSITY OF MICHIGAN - ANN ARBOR 6147
 INVESTIGATION OF THE ORIGIN AND CURRENT STATE OF J UPITER'S
 ATMOSPHERE USING GALILEO PROBE MASS ...
 07/15/1996 - 07/31/1999 FY99: \$0 Total: \$66,000
 Prin. Invest.: S U ATREYA
 Tech. Officer: GSFC/G A SOFFEN, GSFC/P MAHAFFY
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 39 UNIVERSITY OF MICHIGAN - ANN ARBOR 6148
 FINAL YEAR OF FUNDING FOR USRC PROGRAM FOR GRADUA SHIPS.
 (PREVIOUS GRANT# NGT-10028)
 05/30/1997 - 10/31/1997 FY99: \$0 Total: \$82,497
 Prin. Invest.: F ULABY
 Tech. Officer: GSFC/R AVANT
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 75 UNIVERSITY OF MICHIGAN - ANN ARBOR 6149
 A PARALLEL ADAPTIVE MESH REFINEMENT SCHEME FOR SUP ERNOVA
 REMNANTS
 06/16/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: K POWELL
 Tech. Officer: GSFC/G SOFFEN
 CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 87 UNIVERSITY OF MICHIGAN - ANN ARBOR 6150
 INVESTIGATION OF THE ORIGIN AND CURRENT STATE OF JUPITER'S
 ATMOSPHERE USING GALILEO PROBE MASS SPEC
 05/21/1999 - 07/31/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: S K ATREYA
 Tech. Officer: GSFC/M S BURRELL
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30172 UNIVERSITY OF MICHIGAN - ANN ARBOR 6151
 THE USE OF REMOTE SENSING METHODS FOR STUDYING FIR E-INDUCED
 LAND COVER CHANGES IN BOREAL FORESTS O
 09/04/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: C OLSON, FRENCH
 Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40062 UNIVERSITY OF MICHIGAN - ANN ARBOR 6152
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 03/15/1997 - 01/31/2000 FY99: \$475,000 Total: \$1,330,000
 Prin. Invest.: R M JOHNSON
 Tech. Officer: GSFC/L KEFFER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50114 UNIVERSITY OF MICHIGAN - ANN ARBOR 6153
 GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: C
 09/04/1997 - 07/31/1998 FY99: \$0 Total: \$22,000
 Prin. Invest.: F NORI
 Tech. Officer: HQ/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50154 UNIVERSITY OF MICHIGAN - ANN ARBOR 6154
 THE ABUNDANCE AND DISTRIBUTION OF SO2 IN IO'S ATMOSPHERE
 09/11/1997 - 09/30/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: G BALLESTER
 Tech. Officer: HQ/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50199 UNIVERSITY OF MICHIGAN - ANN ARBOR 6155
 MARKET-BASED DISTRIBUTED TASK ALLOCATION IN AUTONO MOUS
 SPACECRAFT
 06/24/1998 - 08/31/2001 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: M WELLMAN
 Tech. Officer: HQ/A NURRIDIN
 CASE Category: 22 - COMPUTER SCIENCE

NGT 5 50255 UNIVERSITY OF MICHIGAN - ANN ARBOR 6156
 A HYBRID KINETIC FLUID MODEL FOR THE ATMOSPHERE OF PLUTO STU-
 DENT: AYL SHA REINARD
 06/21/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: L FISK
 Tech. Officer: GSFC/L SMITH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NASA'S UNIVERSITY PROGRAM

MINNESOTA

NGT 5 90052 UNIVERSITY OF MICHIGAN - ANN ARBOR 6157
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 03/05/1997 - 08/14/1999 FY99: \$0 Total: \$48,000
Prin. Invest.: S GREGERMAN
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NGT 8 52805 UNIVERSITY OF MICHIGAN - ANN ARBOR 6158
 GRADUATE STUDENT RESEARCHERS PROGRAM
 08/01/1995 - 08/01/1998 FY99: -\$10 Total: \$65,990
Prin. Invest.: C AKERLOT
Tech. Officer: MSFC/F SIX
CASE Category: 13 - PHYSICS

NGT 8 52864 UNIVERSITY OF MICHIGAN - ANN ARBOR 6159
 IDENTIFICATION OF LONG TERM CHANGE IN SOCIETY AND SETTLEMENT
 OF THE KHABUR DRAINAGE
 07/28/1998 - 08/13/2001 FY99: \$22,000 Total: \$42,000
Prin. Invest.: H T WRIGHT
Tech. Officer: MSFC/J F DOWDY
CASE Category: 71 - ANTHROPOLOGY

NGT 9 3 UNIVERSITY OF MICHIGAN - ANN ARBOR 6160
 EFFECTS OF AGE/VESTIBULAR REHABILITATION ON POSTURAL CONTROL
 05/31/1995 - 12/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: A D KUO
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 47 - METAL & MATERIALS ENGR

NGT10 52613 UNIVERSITY OF MICHIGAN - ANN ARBOR 6161
 GRADUATE STUDENT RESEARCH GRANT
 09/01/1997 - 07/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: A PRAKASH
Tech. Officer: KSC/G BURKINGHAM
CASE Category: 22 - COMPUTER SCIENCE

NAG 1 1175 WAYNE STATE UNIVERSITY 6162
 ACTIVE CONTROL OF PANEL VIBRATIONS INDUCED BY A BOUNDARY-LAYER
 FLOW
 08/10/1990 - 06/30/1998 FY99: \$0 Total: \$90,295
Prin. Invest.: P L CHOW
Tech. Officer: LARC/L MAESTRELLO, LARC/C A POWELL
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1043 WAYNE STATE UNIVERSITY 6163
 MODELING & VERIFICATION OF HYBRID SYSTEMS
 05/01/1996 - 11/30/1998 FY99: \$0 Total: \$82,500
Prin. Invest.: F LIN
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1279 WAYNE STATE UNIVERSITY 6164
 DEVELOPMENT OF STRATEGIES & TOOLS FOR ANALYSIS & CONTROL OF
 LARGE AIR TRAFFIC MANAGEMENT SYSTEMS
 01/05/1999 - 12/31/1999 FY99: \$30,000 Total: \$30,000
Prin. Invest.: F LIN
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1729 WAYNE STATE UNIVERSITY 6165
 SOOT AD RADIATION-MEASUREMENT IN MICROGRAVITY TURBULENT JET
 DIFFUSION FLAMES
 04/01/1995 - 09/30/1999 FY99: \$0 Total: \$234,000
Prin. Invest.: J KU
Tech. Officer: GRC/P S GREENBERG
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1800 WAYNE STATE UNIVERSITY 6166
 EXIMER LASER BASED COMBUSTION DIAGNOSTICS
 01/22/1996 - 07/21/1999 FY99: \$25,000 Total: \$225,000
Prin. Invest.: E W ROTHE, G P RECK
Tech. Officer: GRC/R C ANDERSON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2180 WAYNE STATE UNIVERSITY 6167
 CHARACTERIZATION OF MULTI-JUNCTION SOLAR CELLS CHARACTER-
 IZATION OF MULTI-JUNCTION SOLAR CELLS
 07/18/1998 - 09/18/1999 FY99: \$40,000 Total: \$75,000
Prin. Invest.: P WOODYARD
Tech. Officer: GRC/D BRINKER
CASE Category: 45 - ELECTRICAL ENGR

NAGW 3260 WAYNE STATE UNIVERSITY 6168
 NAGW-3260/WAYNE STATE UNIV/ARCHITECTURALLY REALISTIC MODELS
 FOR OPTICAL RADIATION REGIME IN VEGETAT
 11/27/1992 - 03/31/1999 FY99: \$0 Total: \$453,039
Prin. Invest.: N S GOEL
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 3 580 WAYNE STATE UNIVERSITY 6169
 APPLICATION OF THE METHOD OF SPACE-TIME CONSERVATION ELEMENT
 AND SOLUTION ELEMENT TO THE CALCULATION
 01/08/1998 - 11/05/2000 FY99: \$88,062 Total: \$167,941
Prin. Invest.: S T YU, M C LAI
Tech. Officer: GRC/P C JORGENSEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1979 WESTERN MICHIGAN UNIVERSITY 6170
 NEW RESEARCH GRANT
 12/10/1997 - 11/30/1999 FY99: \$50,000 Total: \$99,862
Prin. Invest.: W W LIQU
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG13 60 WESTERN MICHIGAN UNIVERSITY 6171
 TWO-DIMENSIONAL ANALYSIS OF ALTITUDE DIFFUSER
 09/30/1997 - 10/01/1998 FY99: \$0 Total: \$20,000
Prin. Invest.: C CHRISTOPHER
Tech. Officer: SSC/JOYCE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

MINNESOTA

NAG 5 7518 CONCORDIA COLLEGE IN MOORHEAD 6172
 MARS MOLECULAR AND ISOTOPIC ANALYSIS RESEARCH STUDY
 06/12/1998 - 08/14/1998 FY99: \$0 Total: \$2,944
Prin. Invest.: H MANNING
Tech. Officer: GSFC/P MAHAFFY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8626 **CONCORDIA COLLEGE IN MOORHEAD** **6173**
 MARS SOLAR BALLOON GAS CHROMATOGRAPH MASS SPECTROMETER
 06/24/1999 - 06/30/2000 FY99: \$5,000 Total: \$5,000
Prin. Invest.: H L MANNING
Tech. Officer: GSFC/P R MAHAFFY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3591 **MANKATO STATE UNIVERSITY** **6174**
 BATSE POST-3B SKY EXPOSURE
 01/02/1997 - 12/14/1997 FY99: -\$3,974 Total: \$36,032
Prin. Invest.: J E HAKKILA
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8142 **MANKATO STATE UNIVERSITY** **6175**
 AN ARTIFICIAL INTELLIGENCE CLASSIFICATION TOOL AND ITS APPLICATION TO GAMMA-RAY BURSTS
 02/03/1999 - 01/31/2000 FY99: \$74,779 Total: \$74,779
Prin. Invest.: J HAKKILA
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 192 **MANKATO STATE UNIVERSITY** **6176**
 PROJECT JOVE
 04/25/1991 - 12/01/1997 FY99: -\$777 Total: \$123,230
Prin. Invest.: J HAKKILA, H SHENG, E BOYD
Tech. Officer: MSFC/F SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4904 **MOORHEAD STATE UNIVERSITY** **6177**
 EXPERIMENTAL DETERMINATION OF THE EFFECTS OF F02 A ON ACTIVITIES IN SILICATE MELTS
 06/19/1997 - 07/31/1998 FY99: \$0 Total: \$30,000
Prin. Invest.: D O COLSON
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 7366 **MOORHEAD STATE UNIVERSITY** **6178**
 ELECTROCHEMICAL STUDY OF SILICATE MELT STRUCTURE AND COMPO-NENTACTIVITIES
 05/15/1998 - 05/31/2000 FY99: \$37,800 Total: \$67,800
Prin. Invest.: R O COLSON
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 1 1788 **SAINT CLOUD STATE UNIVERSITY** **6179**
 DEFINING NAVIGATION ACCURACIES FOR LOW VISIBILITY TAXING ON THE AIRPORT SURFACE
 12/15/1995 - 11/30/1997 FY99: -\$12,075 Total: \$234,749
Prin. Invest.: D RANKIN
Tech. Officer: LARC/R W WILLS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 6726 **SAINT CLOUD STATE UNIVERSITY** **6180**
 PARENT MOLECULES IN COMET C/1995 01 (HALE BOPP)
 12/12/1997 - 06/30/1999 FY99: \$0 Total: \$43,105
Prin. Invest.: D P WOMACK
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 1 1938 **UNIV OF MINNESOTA** **6181**
 INVESTIGATION OF MESOSCALE VARIABILITY IN CONVECTIVE BOUNDARY LAYER DEVELOPMENT USING
 05/28/1997 - 05/31/2000 FY99: \$25,877 Total: \$79,516
Prin. Invest.: K J DAVIS
Tech. Officer: LARC/S ISMAIL, LARC/W T STEVENS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2242 **UNIV OF MINNESOTA** **6182**
 STRUCTURING FORMAL RQMTS SPECIFICATIONS FOR REUSE AND PRODUCT FAMILIES - NRA 98-LARC-8
 09/28/1999 - 09/30/2000 FY99: \$20,685 Total: \$20,685
Prin. Invest.: M E HEMDAHL
Tech. Officer: LARC/R W BUTLER
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1125 **UNIV OF MINNESOTA** **6183**
 NUMERICAL SIMULATION OF ATMOSPHERIC ENTRY FLOWS
 04/11/1997 - 12/31/1998 FY99: \$0 Total: \$100,000
Prin. Invest.: G V CANDLER
Tech. Officer: ARC/D R OLYNICK, ARC/M LOOMIS
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 2 1151 **UNIV OF MINNESOTA** **6184**
 PERFORMANCE & PROTABILITY ISSUES IN SHARED FILE SYSTEMS
 08/12/1997 - 08/31/1998 FY99: \$0 Total: \$110,879
Prin. Invest.: M T O'KEEFE
Tech. Officer: ARC/J R LEKASHMAN, ARC/S F WALWORTH
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1308 **UNIV OF MINNESOTA** **6185**
 A COLLABORATIVE RESEARCH & DEVELOPMENT PROJECT FOR THE GLOBAL FILE SYSTEM
 03/19/1999 - 01/31/2000 FY99: \$356,667 Total: \$356,667
Prin. Invest.: M T O'KAAFE, NONE
Tech. Officer: ARC/J R LEKASHMAN, MSFC/J PARKS
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 1732 **UNIV OF MINNESOTA** **6186**
 MEASUREMENTS IN TRANSITIONAL BOUNDARY LAYER UNDER LOW-PRESSURE TURBINE AIRFOIL CONDITIONS
 04/01/1995 - 11/30/1998 FY99: \$0 Total: \$238,529
Prin. Invest.: T W SIMON
Tech. Officer: GRC/F F SIMON
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1975 **UNIV OF MINNESOTA** **6187**
 ROBUST NONLINEAR FEEDBACK CONTROL OF AIRCRAFT PROPELLSION SYSTEMS
 10/22/1996 - 10/31/2000 FY99: \$55,377 Total: \$204,848
Prin. Invest.: W L GARRARD, G T BALAS
Tech. Officer: GRC/S GARG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2187 **UNIV OF MINNESOTA** **6188**
 DEVELOPMENT OF A CALIBRATION SYSTEM FOR EVALUATING INSTRUMENTS FOR MEASURING AEROSOLS AND PARTICULATES
 08/06/1998 - 05/25/2000 FY99: \$50,000 Total: \$150,000
Prin. Invest.: D H PUI
Tech. Officer: GRC/T M SANDERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 3 2275 **UNIV OF MINNESOTA** **6189**
 FEASIBILITY STUDY OF A MICROSCALE PARTICULATE CLASSIFIER (MIPAC)
 07/01/1999 - 10/20/1999 FY99: \$47,500 Total: \$47,500
Prin. Invest.: D H PUL
Tech. Officer: GRC/P S GREENBERG
CASE Category: 49 - ENGINEERING, OTHER

NAG 4 159 **UNIV OF MINNESOTA** **6190**
 APPLICATION OF GAIN MCT TO THE FA-18 SRA
 01/14/1999 - 01/14/2000 FY99: \$40,000 Total: \$40,000
Prin. Invest.: G J BALAS
Tech. Officer: DFRC/R LIND
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 2108 **UNIV OF MINNESOTA** **6191**
 DEVELOPMENT OF A GENERALIZED FRAMEWORK FOR IDENTIFYING AND
 STUDYING SCALE INVARIANT RELATIONSHIPS..
 10/08/1992 - 10/14/1997 FY99: -\$1,860 Total: \$268,590
Prin. Invest.: E FOUFOULA-GEORGIOU
Tech. Officer: GSFC/R F CAHALAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2698 **UNIV OF MINNESOTA** **6192**
 ENHANCED ACCESS FOR FOREST MANAGEMENT PLANNING
 08/25/1994 - 08/31/1999 FY99: \$0 Total: \$646,982
Prin. Invest.: T E BURK
Tech. Officer: GSFC/F HASLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2980 **UNIV OF MINNESOTA** **6193**
 UNCOVERING ULTRALUMINOUS GALAXIES IN THE IRAS FSC THROUGH
 RADIO AND OPTICAL IDENTIFICATION
 06/27/1995 - 06/30/1998 FY99: -\$15,674 Total: \$27,214
Prin. Invest.: G S ALDERING
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3217 **UNIV OF MINNESOTA** **6194**
 ANALYSIS OF DATA FROM THE UCLA MAGNETOMETER ON THE NASA
 POLAR SPACECRAFT
 04/26/1996 - 12/31/1998 FY99: -\$16,895 Total: \$210,366
Prin. Invest.: C CATTELL
Tech. Officer: GSFC/R A HOFFMAN
CASE Category: 13 - PHYSICS

NAG 5 3395 **UNIV OF MINNESOTA** **6195**
 MINNESOTA BLOCK GRANT FOR ISO OBSERVATIONS
 09/09/1996 - 08/14/1999 FY99: \$0 Total: \$141,200
Prin. Invest.: R GEHRZ
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3533 **UNIV OF MINNESOTA** **6196**
 THERMOREGULATION AND HEAT EXCHANGE IN A NONUNIFORM DURING
 SIMULATED EXTENDED EVA
 11/18/1996 - 12/31/1998 FY99: -\$11 Total: \$447,317
Prin. Invest.: V S KOSCHEVEV
Tech. Officer: GSFC/J D COLLIER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3735 **UNIV OF MINNESOTA** **6197**
 STUDY FOR AN AURORAL MULTI-PROBE SATELLITE MISSION
 03/03/1997 - 02/29/2000 FY99: \$0 Total: \$200,000
Prin. Invest.: D A CATTELL
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 3980 **UNIV OF MINNESOTA** **6198**
 KINETICS & MECHANISMS OF ATMOSPHERIC PHOTOOXIDATION OF
 HALOFLUOROCARBONS & HYDROFLUOROCARBONS
 03/05/1997 - 01/31/2000 FY99: \$96,567 Total: \$302,512
Prin. Invest.: R W CARR
Tech. Officer: GSFC/M J KURYLO
CASE Category: 11 - ASTRONOMY

NAG 5 3998 **UNIV OF MINNESOTA** **6199**
 WEB EXPLORATION TOOLS FOR A FAST FEDERATED OPTICAL
 03/06/1997 - 02/28/2000 FY99: \$0 Total: \$225,911
Prin. Invest.: P M HUMPHREYS
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4466 **UNIV OF MINNESOTA** **6200**
 A THREE-DIMENSIONAL, TIME-DEPENDENT MODEL OF THE IONOSPHERIC WAVES
 WITH THE IONOSPHERE
 05/21/1997 - 04/30/2000 FY99: \$115,473 Total: \$223,663
Prin. Invest.: D L LYSACK
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4705 **UNIV OF MINNESOTA** **6201**
 IR IMAGING, SPECTROSCOPY & PHOTOMETRIC STUDIES OF
 06/11/1997 - 06/30/1999 FY99: \$0 Total: \$27,500
Prin. Invest.: D D GEHRZ
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAG 5 4709 **UNIV OF MINNESOTA** **6202**
 ANOMALOUS ISOTOPE ABUNDANCES IN EXTRATERRESTRIAL MATERIAL
 06/11/1997 - 03/31/1999 FY99: \$0 Total: \$76,000
Prin. Invest.: D O PEPIN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 5048 **UNIV OF MINNESOTA** **6203**
 A ROCKET EXPERIMENT TO STUDY PULSATING AURORA
 11/02/1995 - 02/28/1998 FY99: \$0 Total: \$45,721
Prin. Invest.: P J KELLOGG
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5055 **UNIV OF MINNESOTA** **6204**
 MAGNETOHYDRODYNAMICS (MHD) AND DIFFUSE SHOCK ACCELERATION
 03/27/1996 - 03/31/1998 FY99: \$0 Total: \$60,000
Prin. Invest.: T W JONES
Tech. Officer: GSFC/H C NEEDLEMAN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 5113 **UNIV OF MINNESOTA** **6205**
 THE PROPAGATION OF UH COSMIT RAY NUCLEI FUNDING FOR FIRST YEAR OF GRANT
 04/09/1997 - 03/31/2000 FY99: \$0 Total: \$37,280
Prin. Invest.: C J WADDINGTON
Tech. Officer: GSFC/H C NEDDLEMAN, GSFC/B A MERRITT
CASE Category: 12 - CHEMISTRY

NAG 5 5172 **UNIV OF MINNESOTA** **6206**
 A VERY HIGH TIME RESOLUTION ROCKET INVESTIGATION OF IONOSPHERIC PLASMA PHYSICS ASSOCIATED WITH ATMO
 03/30/1998 - 12/31/1999 FY99: \$219,800 Total: \$418,027
Prin. Invest.: J R WYGANT
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5182 **UNIV OF MINNESOTA** **6207**
 TIME DEPENDENT SIMULATION OF NONLINEAR COSMIC-RAY ACCELERATION IN SHOCKS: A POWERFUL NEW APPROACH
 03/26/1998 - 02/28/2000 FY99: \$46,000 Total: \$90,890
Prin. Invest.: T W JONES
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5214 **UNIV OF MINNESOTA** **6208**
 PHASE A GRANT STUDY FOR IMEX PROJECT P I - PROF J WYGANT
 10/08/1998 - 10/31/1999 FY99: \$259,500 Total: \$259,500
Prin. Invest.: J WYGANT
Tech. Officer: GSFC/D PIERCE
CASE Category: 13 - PHYSICS

NAG 5 6191 **UNIV OF MINNESOTA** **6209**
 TITLE: MORPHOLOGICAL ANALYSIS OF BRAIDED RIVERS U
 08/13/1997 - 07/31/2000 FY99: \$0 Total: \$84,254
Prin. Invest.: E FOUFOULA-GEORGI
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6416 **UNIV OF MINNESOTA** **6210**
 HEAVY ELEMENT ABUNDANCES: CLUES TO THE EVOLUTION OF STAR (LTSA)
 10/30/1997 - 08/31/1998 FY99: -\$37,189 Total: \$71,187
Prin. Invest.: D GARNETT
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6609 **UNIV OF MINNESOTA** **6211**
 ENHANCING REMOTE SENSING RESEARCH AND EDUCATION AT THE UNIVERSITY OF MINNESOTA
 12/16/1997 - 11/30/1999 FY99: \$0 Total: \$199,604
Prin. Invest.: M BAUER
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6797 **UNIV OF MINNESOTA** **6212**
 RHEOLOGY OF DIABASE: IMPLICATIONS FOR TECTONICS ON VENUS AND MARS
 02/19/1998 - 03/31/2001 FY99: \$70,500 Total: \$141,621
Prin. Invest.: D L KOHLSTEDT
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7094 **UNIV OF MINNESOTA** **6213**
 RARE GAS AND NITROGEN STUDIES ON LUNAR, METEORITIC, AND SELECTED TERRESTRIAL MATERIALS
 05/20/1998 - 03/14/2000 FY99: \$173,000 Total: \$301,000
Prin. Invest.: R O PEPIN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7202 **UNIV OF MINNESOTA** **6214**
 CONTINUING DATA ANALYSIS OF THE WAVES EXPERIMENT ON THE WIND SPACECRAFT
 04/22/1998 - 02/28/2000 FY99: \$298,516 Total: \$593,516
Prin. Invest.: P KELLOGG
Tech. Officer: GSFC/K OGILVIE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7462 **UNIV OF MINNESOTA** **6215**
 SOLAR WIND COUPLING TO THE MAGNETOSPHERE: ANALYSIS OF MULTISPACECRAFT OBSERVATIONS IN SOLAR WIND
 11/12/1998 - 12/31/1999 FY99: \$84,519 Total: \$84,519
Prin. Invest.: N LIN
Tech. Officer: GSFC/M H ACUNA
CASE Category: 11 - ASTRONOMY

NAG 5 7599 **UNIV OF MINNESOTA** **6216**
 REGIONAL HYDROLOGIC SIMULATION MODEL TO STUDY AQUIFER-ATMOSPHERE INTERACTIONS ON INTERANNUAL-DECADE
 07/21/1998 - 06/30/2001 FY99: \$0 Total: \$250,000
Prin. Invest.: M PERSON
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7715 **UNIV OF MINNESOTA** **6217**
 SPATIO-TEMPORAL ORGANIZATION AND SPACE-TIME DOWNSCALING OF TROPICAL RAINFALL
 10/27/1998 - 10/31/1999 FY99: \$75,847 Total: \$75,847
Prin. Invest.: E FOUFOULA-GEORGI
Tech. Officer: GSFC/D W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7885 **UNIV OF MINNESOTA** **6218**
 SUPPORT ANALYSIS OF DATA FROM THE UCLA MAGNETOMETER ON NASAPOLAR SPACECRAFT DURING THE
 12/01/1998 - 12/31/1999 FY99: \$32,500 Total: \$32,500
Prin. Invest.: C CATELL
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7906 **UNIV OF MINNESOTA** **6219**
 INFRARED IMAGING PHOTOMETRY AND POLARIMETRY OF COMETS
 12/10/1998 - 09/30/2000 FY99: \$150,200 Total: \$150,200
Prin. Invest.: D J JONES
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 7917 **UNIV OF MINNESOTA** **6220**
 BIG FOOT—CHARACTERIZING LAND COVER, LAI AND NPP AT THE LANDSCAPE SCALE FOR EOS/MODIS VALIDATION
 12/09/1998 - 12/31/1999 FY99: \$76,797 Total: \$76,797
Prin. Invest.: P B REICH
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8016	UNIV OF MINNESOTA	6221	NAG 8 1519	UNIV OF MINNESOTA	6229
MAJOR EQUIPMENT FOR "HIGH-RESOLUTION 3-D IMAGING OF DEFORMATION MICRO-STRUCTURES" SUBMITTED AS AN			SUBGRID SCALE PRECIPITATION VARIABILITY OVER THE MISSISSIPPI RIVER BASIN		
01/21/1999 - 01/31/2000	FY99: \$44,000	Total: \$44,000	05/01/1998 - 04/30/2001	FY99: \$110,729	Total: \$217,495
Prin. Invest.: D L KOHLSTEDT			Prin. Invest.: E FOULOUA-GEORGIOU		
Tech. Officer: GSFC/J GRANT			Tech. Officer: MSFC/J ARNOLD		
CASE Category: 11 - ASTRONOMY			CASE Category: 32 - GEOLOGICAL SCIENCE		
NAG 5 8073	UNIV OF MINNESOTA	6222	NAG 9 919	UNIV OF MINNESOTA	6230
GEOTAIL OBSERVATIONS OF EXB FLOWS AND ASSOCIATED LOW FREQUENCY WAVES IN THE MAGNETOTAIL AND THEIR D			PARRALLEL 3-D COMP OF FLUID DYNAMICS AND FLUID ...		
01/21/1999 - 01/31/2000	FY99: \$84,000	Total: \$84,000	12/04/1996 - 09/30/1998	FY99: -\$36,558	Total: \$11,442
Prin. Invest.: C A CATTELL			Prin. Invest.: T E TEZDUYAR		
Tech. Officer: GSFC/M H ACUNA			Tech. Officer: JSC/J MURATORE, JSC/F MARTIN		
CASE Category: 13 - PHYSICS			CASE Category: 49 - ENGINEERING, OTHER		
NAG 5 8082	UNIV OF MINNESOTA	6223	NAG 9 1007	UNIV OF MINNESOTA	6231
THEORETICAL STUDY OF ULF WAVES IN THE MAGNETOTAIL			GENESIS DISCOVERY MISSION		
01/22/1999 - 04/30/2000	FY99: \$94,277	Total: \$94,277	05/06/1998 - 08/31/1999	FY99: \$0	Total: \$117,194
Prin. Invest.: D L LYSAK			Prin. Invest.: R O PEPIN		
Tech. Officer: GSFC/D EVANS			Tech. Officer: JSC/E K STANSBERRY		
CASE Category: 11 - ASTRONOMY			CASE Category: 19 - PHYSICAL SCIENCE, OTHER		
NAG 5 8205	UNIV OF MINNESOTA	6224	NAG 9 1043	UNIV OF MINNESOTA	6232
STUDY OF SUBSTORM ASSOCIATED ULF AND VLF WAVES IN THE MAGNETOTAIL USING SPACECRAFT DATA			FINGER COMFORT MANAGEMENT		
02/08/1999 - 02/14/2000	FY99: \$55,000	Total: \$55,000	06/26/1998 - 01/31/1999	FY99: -\$82	Total: \$48,918
Prin. Invest.: D LIN			Prin. Invest.: V K VICTOR, S KOSCHEYEV		
Tech. Officer: GSFC/D EVANS			Tech. Officer: JSC/R TREVINO		
CASE Category: 11 - ASTRONOMY			CASE Category: 54 - ENVIRONMENTAL BIOLOGY		
NAG 5 8736	UNIV OF MINNESOTA	6225	NAGW 2653	UNIV OF MINNESOTA	6233
MERGING MODELS AND OBSERVATIONS OF THE ATMOSPHERIC BOUNDARY LAYER'S MESOSCALE STRUCTURE DURING SGP97			STUDY OF TIME-DEPENDENT MAGNETOSPHERE/IONOSPHERE COUPLING ON INTERMEDIATE AND SMALL SCALES		
08/18/1999 - 08/14/2000	FY99: \$10,681	Total: \$10,681	07/15/1991 - 04/30/1998	FY99: \$0	Total: \$361,192
Prin. Invest.: K J DAVIS			Prin. Invest.: R L LYSAK		
Tech. Officer: GSFC/E T ENGMAN			Tech. Officer: HQ/M M MELLOTT, HQ/J D BOHLIN		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 11 - ASTRONOMY		
NAG 8 1258	UNIV OF MINNESOTA	6226	NAG13 99002	UNIV OF MINNESOTA	6234
ATOMISTIC SIMULATIONS OF CADMIUM TELLURIDE			THE UPPER MIDWEST REGIONAL EARTH SCIENCE APPLICATION CENTER		
04/15/1996 - 04/16/2000	FY99: \$88,000	Total: \$315,333	02/03/1999 - 02/02/2002	FY99: \$1,500,000	Total: \$1,500,000
Prin. Invest.: J DERBY			Prin. Invest.: M E BAUER		
Tech. Officer: MSFC/P DOTY, MSFC/D NOEVER			Tech. Officer: SSC/C HILL		
CASE Category: 19 - PHYSICAL SCIENCE, OTHER			CASE Category: 32 - GEOLOGICAL SCIENCE		
NAG 8 1349	UNIV OF MINNESOTA	6227	NAG13 99022	UNIV OF MINNESOTA	6235
SELF-ASSEMBLY OF HEPATOCYTE SPHEROIDS IN MICRO-GRAVITY			INTEGRATING SATELLITE REMOTE SENSING INTO FOREST INVENTORY AND MANAGEMENT		
06/19/1997 - 11/30/2000	FY99: \$137,000	Total: \$357,736	08/13/1999 - 08/12/2000	FY99: \$87,525	Total: \$87,525
Prin. Invest.: W S HU, L HANSEN, R KEMMEL			Prin. Invest.: M BAUER		
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO			Tech. Officer: SSC/R MCKELLIP		
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
NAG 8 1474	UNIV OF MINNESOTA	6228	NAS 5 32670	UNIV OF MINNESOTA	6236
THEORETICAL ANALYSIS OF 3D TRANSIENT CONVECTION AND SEGREGATION			INCORPORATING THE APS CATALOG OF THE POSS I & IMAGE ARCHIVE IN ADS		
02/06/1998 - 01/31/2002	FY99: \$131,167	Total: \$224,500	08/08/1994 - 09/30/1997	FY99: \$0	Total: \$172,888
Prin. Invest.: J J DERBY, A J YECKEL			Prin. Invest.: R HUMPHREYS		
Tech. Officer: MSFC/C TALLEY			Tech. Officer: GSFC/D WEST		
CASE Category: 13 - PHYSICS			CASE Category: 42 - ASTRONAUTICAL ENGR		

NAS 5 32994	UNIV OF MINNESOTA	6237	
SCIENTIFIC AND TECHNICAL SUPPORT FOR THE UNIFIED RADIO AND PLASMA WAVE INVESTIGATION			
02/08/1996 - 12/31/1999	FY99: \$113,410	Total: \$456,668	
<i>Prin. Invest.:</i> K GOETZ, P J KELLOGG			
<i>Tech. Officer:</i> GSFC/R J MACDOWELL			
CASE Category: 19 - PHYSICAL SCIENCE, OTHER			
NCC 1 247	UNIV OF MINNESOTA	6238	
ROBUST SYSTEM IDENTIFICATION FOR CONTROL MY 1/3			
12/09/1996 - 12/08/1998	FY99: -\$1	Total: \$49,996	
<i>Prin. Invest.:</i> G J BALAS			
<i>Tech. Officer:</i> LARC/K B LIM			
CASE Category: 42 - ASTRONAUTICAL ENGR			
NCC 1 311	UNIV OF MINNESOTA	6239	
IMPLEMENTATION OF IMPROVED NANOMETER AEROSOL SIZE ANALYZER (NANO-ASA) FOR NEAR-FIELD FLT EXPERIMENTS			
07/23/1998 - 07/14/2000	FY99: \$40,000	Total: \$80,550	
<i>Prin. Invest.:</i> D PUI, B E ANDERSON, D B KITTELSON			
<i>Tech. Officer:</i> LARC/W L GROSE, LARC/R S ECKMAN			
CASE Category: 31 - ATMOSPHERIC SCIENCE			
NCC 1 337	UNIV OF MINNESOTA	6240	
APPLICATION OF LINEAR PARAMETER-VARYING TECHNIQUES TO SAFETY-CRITICAL AIRCRAFT FLIGHT SYSTEMS			
07/20/1999 - 07/14/2002	FY99: \$100,000	Total: \$100,000	
<i>Prin. Invest.:</i> G J BALAS			
<i>Tech. Officer:</i> LARC/C M BELCASTRO, LARC/N M BELCASTRO			
CASE Category: 41 - AERONAUTICAL ENGR			
NCC 2 809	UNIV OF MINNESOTA	6241	
OPTIMAL TAKEOFF PROCEDURES FOR A CATEGORY A HELICOPTERS			
07/08/1993 - 09/30/1999	FY99: \$35,000	Total: \$333,108	
<i>Prin. Invest.:</i> Y ZHAO			
<i>Tech. Officer:</i> ARC/R T CHEN			
CASE Category: 41 - AERONAUTICAL ENGR			
NCC 2 990	UNIV OF MINNESOTA	6242	
AIRCRAFT SCHEDULING & CONFLICT RESOLUTION IN ATM			
04/29/1997 - 07/31/1999	FY99: \$51,824	Total: \$203,317	
<i>Prin. Invest.:</i> Y ZHAO			
<i>Tech. Officer:</i> ARC/T J DAVIS, ARC/J E ROBINSON, III			
CASE Category: 41 - AERONAUTICAL ENGR			
NCC 2 5221	UNIV OF MINNESOTA	6243	
THE EFFECT OF SWIRL ON TURBULENT STRUCTURES IN SUPERSONIC JETS			
06/11/1997 - 12/31/1997	FY99: \$0	Total: \$22,416	
<i>Prin. Invest.:</i> T S LUNDGREN			
<i>Tech. Officer:</i> ARC/K SHARIFF			
CASE Category: 41 - AERONAUTICAL ENGR			
NCC 2 5268	UNIV OF MINNESOTA	6244	
LOAD BALANCING ON THE INFORMATION POWER GRID			
05/20/1998 - 09/30/1998	FY99: \$0	Total: \$40,000	
<i>Prin. Invest.:</i> V KUMAR			
<i>Tech. Officer:</i> ARC/S SAINI			
CASE Category: 22 - COMPUTER SCIENCE			
NCC 2 5317	UNIV OF MINNESOTA	6245	
SCHEDULING ALGORITHMS & APPLICATIONS DEVELOPMENT ON THE INFORMATIONPOWER GRID			
04/13/1999 - 10/31/1999	FY99: \$40,000	Total: \$40,000	
<i>Prin. Invest.:</i> V KAMAR, G KARYPIS			
<i>Tech. Officer:</i> ARC/S SAINI			
CASE Category: 22 - COMPUTER SCIENCE			
NCC 2 5340	UNIV OF MINNESOTA	6246	
LIFE IN EXTREME ENVIRONMENTS RESEARCH			
08/04/1999 - 07/31/2000	FY99: \$30,000	Total: \$30,000	
<i>Prin. Invest.:</i> W E SEYFRIED			
<i>Tech. Officer:</i> ARC/M T FLYNN, ARC/J HINES			
CASE Category: 33 - OCEANOGRAPHY			
NCC 3 652	UNIV OF MINNESOTA	6247	
MEASUREMENTS IN A TRANSITIONAL BOUNDARY LAYER UNDER LOW-PRESSURE TURBINE AIRFOIL CONDITIONS			
11/10/1998 - 10/27/1999	FY99: \$67,762	Total: \$67,762	
<i>Prin. Invest.:</i> T W SIMON			
<i>Tech. Officer:</i> GRC/D E ASHPIS			
CASE Category: 46 - MECHANICAL ENGR			
NCC 5 316	UNIV OF MINNESOTA	6248	
INSTITUTIONALIZING MTPE DATA FOR LAND & ENVIRONMENTAL MANAGEMENT			
04/11/1998 - 02/28/2001	FY99: \$108,000	Total: \$268,000	
<i>Prin. Invest.:</i> T BURK			
<i>Tech. Officer:</i> GSFC/A TUYAHOV			
CASE Category: 99 - MULTI INTERDISCIPL, OTHER			
NGT 5 8	UNIV OF MINNESOTA	6249	
A SYSTEMATIC STUDY OF X-RAY SYNCHROTRON RADIATION FROM SHELL TYPE SUPERNOVA REMNANTS			
06/26/1995 - 10/31/1998	FY99: -\$456	Total: \$65,544	
<i>Prin. Invest.:</i> L RUDNICK			
<i>Tech. Officer:</i> GSFC/G A SOFFEN, GSFC/R PETRE			
CASE Category: 11 - ASTRONOMY			
NGT 5 30080	UNIV OF MINNESOTA	6250	
THE HYDROLOGIC CYCLE OF THE LOWER KANSAS RIVER BASIN OF LAND-ATMOSPHERE FEEDBACKS AND POTENTIAL EFFECT			
09/11/1997 - 08/31/2000	FY99: \$0	Total: \$22,000	
<i>Prin. Invest.:</i> M PERSON			
<i>Tech. Officer:</i> GSFC/G ASRAR			
CASE Category: 99 - MULTI INTERDISCIPL, OTHER			
NGT 5 30109	UNIV OF MINNESOTA	6251	
FAST-GEOTAIL CORRELATIVE STUDIES OF MAGNETOSPHERE-IONOSPHERE COUPLING			
05/11/1998 - 07/31/2001	FY99: \$22,000	Total: \$44,000	
<i>Prin. Invest.:</i> C CATTELL/SIGSBEE			
<i>Tech. Officer:</i> GSFC/D EVANS			
CASE Category: 11 - ASTRONOMY			

NGT 5 30111 **UNIV OF MINNESOTA** **6252**
 THE IMPACTS OF A SALT CEDAR (TAMARIX RAMOSISSIMA) INVASION
 ON COMMUNITIES, ECOSYSTEM PROCE
 08/28/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: S HOBBI
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30115 **UNIV OF MINNESOTA** **6253**
 ECOSYSTEM RESPONSE TO CLIMATIC CHANGE: A COMPARATIVE STUDY
 OF FOREST-LAKE ECOSYSTEMS ON DIFFERENT S
 10/01/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M DAVIS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40040 **UNIV OF MINNESOTA** **6254**
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 01/24/1997 - 02/28/2000 FY99: \$475,000 Total: \$936,250
Prin. Invest.: W L GARRARD
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50091 **UNIV OF MINNESOTA** **6255**
 STUDY OF LONG RANGE QUANTUM COHERENCE IN THE BOSE- LIQUID
 HELIUM FOUR.
 09/05/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: HALLEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50104 **UNIV OF MINNESOTA** **6256**
 SPATIO-TEMPORAL ORGANIZATION OF REMOTELY SENSED RA DYNAMIC
 SCALING AND DEVELOPMENT OF FRAMEWORK FOR
 09/06/1997 - 08/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: G POURFOULA
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50123 **UNIV OF MINNESOTA** **6257**
 THE DYNAMICAL EVOLUTION OF YOUNG SUPERNOVA REMNANT
 09/10/1997 - 09/14/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: L RUDNICK
Tech. Officer: HQ/A NURRIDIN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 5 50186 **UNIV OF MINNESOTA** **6258**
 THREE DIMENSIONAL SIMULATION OF KELVIN-HELMHOLTZ INSTABILITY
 WITH MAGNETIC SHEAR
 05/27/1998 - 06/30/2000 FY99: \$16,500 Total: \$38,500
Prin. Invest.: R L LYSAK
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 - PHYSICS

NGT 5 50208 **UNIV OF MINNESOTA** **6259**
 THEORETICAL STUDIES OF DISSIPATION IN THE PROPOSED CONDENSATE
 EXPERIMENT IN HELIUM FOUR
 07/10/1998 - 06/30/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: J W HALLEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 - PHYSICS

NGT 5 50250 **UNIV OF MINNESOTA** **6260**
 SOUTHERN GALACTIC PLANE SURVEY AT 21 CM STUDENT: NAOMI M.
 MCCLURE-G
 06/08/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J DICKEY
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50251 **UNIV OF MINNESOTA** **6261**
 STUDY OF SOLITARY WAVES & DOUBLE LAYERS IN HIGH ALTITUDE CUSP
 AND PLASMA SHEET BOUNDARY REGION
 06/08/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: C CATTELL
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NSG 5088 **UNIV OF MINNESOTA** **6262**
 RESEARCH OF MAGNETOSPHERIC PHYSICS PHENOMENA USING SOUND
 ROCKETS
 11/01/1975 - 06/30/2000 FY99: \$7,500 Total: \$2,615,463
Prin. Invest.: J R WINCKLER
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NCC 9 67 **WINONA STATE UNIVERSITY** **6263**
 RELIABILITY MODELING WITH CASUAL VARIABLES ATTRIBUTABLE WITHIN
 THE LOGISTIC REGRESSION MODEL
 02/23/1998 - 09/01/1999 FY99: \$0 Total: \$55,000
Prin. Invest.: R D JARVINEN
Tech. Officer: JSC/R P HEYDORN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

MISSISSIPPI

NAG 9 1135 **ALCORN STATE UNIVERSITY** **6264**
 INTEGRATED POWER SYS RELIABILITY CURRICULUM ENHANCEMENT AND
 LAB DEVELOP PROGRAM
 08/17/1999 - 08/16/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: N W MOSES
Tech. Officer: JSC/W C ROEH, JSC/L M ARMENDARIZ
CASE Category: 45 - ELECTRICAL ENGR

NAG13 98005 **ALCORN STATE UNIVERSITY** **6265**
 THERMAL-HYDRAULIC MATERIAL PRE-CONSTRUCTION ANALYSIS OF THE
 NEW SSME TEST DIFFUSER
 03/31/1998 - 03/30/2000 FY99: \$82,500 Total: \$176,892
Prin. Invest.: S ACEIL
Tech. Officer: JSC/B ST. CYR
CASE Category: 49 - ENGINEERING, OTHER

NAG13 98010 **ALCORN STATE UNIVERSITY** **6266**
 STRENGTHENING PRE-SERVICE AND IN-SERVICE TEACHER EDUCATION
 IN MATHEMATICS, SCIENCE & TECHNOLOGY
 06/12/1998 - 06/10/2001 FY99: \$191,264 Total: \$379,734
Prin. Invest.: D ADDIE, J RUSSELL, W HUMPHRY
Tech. Officer: JSC/N SULLIVAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2277 JACKSON STATE UNIVERSITY 6267
 INTELLIGENT INTERFACE TO THE NUMERICAL SIMULATORS (IINS) OF THE
 AEROSPACE TRANSPORTATION ENGINES.
 07/22/1999 - 07/31/2000 FY99: \$35,032 Total: \$35,032
 Prin. Invest.: D MITRA
 Tech. Officer: GRC/D F NOGA
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6086 JACKSON STATE UNIVERSITY 6268
 PACE/MSET AWARD
 08/28/1997 - 07/31/1998 FY99: \$0 Total: \$99,985
 Prin. Invest.: A MOHAMED
 Tech. Officer: HQ/M STOUTSENBERGER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6209 JACKSON STATE UNIVERSITY 6269
 BOUNDARY LAYER PROCESSES AFFECTING TROPICAL CYCLONES
 08/06/1997 - 07/31/2000 FY99: \$100,000 Total: \$225,000
 Prin. Invest.: P FITZPATRICK
 Tech. Officer: GSFC/R ADLER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1316 JACKSON STATE UNIVERSITY 6270
 JOVE RESEARCH
 01/22/1997 - 05/31/2000 FY99: \$0 Total: \$75,000
 Prin. Invest.: R S REDDY
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 990 JACKSON STATE UNIVERSITY 6271
 JSU INTEGRATED ATECHNOLOGY PAROGRAM
 02/26/1998 - 07/30/1999 FY99: \$0 Total: \$25,000
 Prin. Invest.: S BOLLS
 Tech. Officer: KSC/D G SICKOREZ
 CASE Category: 41 - AERONAUTICAL ENGR

NAGW 4092 JACKSON STATE UNIVERSITY 6272
 PRE-ENGINEERING (9TH GRADE) MINORITY TRAINING SUMM ER PRO-
 GRAM
 07/28/1994 - 11/30/1997 FY99: -\$7,664 Total: \$130,287
 Prin. Invest.: A K MOHAMED
 Tech. Officer: HQ/B L WHITE
 CASE Category: 49 - ENGINEERING, OTHER

NAG13 49 JACKSON STATE UNIVERSITY 6273
 JSU-NASA PARTNERSHIP FOR RESEARCH AND EDUCATIONAL PROGRAMS
 06/23/1997 - 09/30/1999 FY99: \$68,000 Total: \$360,000
 Prin. Invest.: P B TCHOUNWOU
 Tech. Officer: SSC/A T JOYCE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 98007 JACKSON STATE UNIVERSITY 6274
 PACE/MSET SAME
 06/10/1998 - 06/09/2001 FY99: \$99,970 Total: \$199,940
 Prin. Invest.: A K MOHAMED
 Tech. Officer: SSC/A JOYCE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 99004 JACKSON STATE UNIVERSITY 6275
 MASTAP PROJECT: A MODEL FOR IMPROVING THE PRE- SERVICE TRAIN-
 ING OF MIDDLE SCHOOL MATH TEACHERS
 02/23/1999 - 02/22/2002 FY99: \$199,600 Total: \$199,600
 Prin. Invest.: H GORE
 Tech. Officer: SSC/A JOYCE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 99012 JACKSON STATE UNIVERSITY 6276
 STUDIES OF OCEAN-ATMOSPHERIC INTERACTIONS AND ASSOCIATED
 TROPICAL CYCLONES/HURRICANES OF GULF ME
 03/17/1999 - 03/16/2002 FY99: \$100,000 Total: \$100,000
 Prin. Invest.: R REDDY
 Tech. Officer: JSC/R MILLER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG13 99013 JACKSON STATE UNIVERSITY 6277
 SATELLITE ANALYSIS OF GULF COAST ATMOSPHERE MOSITURE AND TRO-
 POSHERIC AEROSOLS
 03/24/1999 - 03/23/2002 FY99: \$99,999 Total: \$99,999
 Prin. Invest.: P CROFT
 Tech. Officer: JSC/J JENNER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 3 437 JACKSON STATE UNIVERSITY 6278
 SYSTEM DEFINITION AND OBJECT ORIENTED PROGRAMMING FOR A
 ROCKET ENGINE NUMERICAL SIMULATION
 10/23/1995 - 12/31/1999 FY99: \$0 Total: \$284,267
 Prin. Invest.: D N BHALLA
 Tech. Officer: GRC/D E NOGA, GRC/K J DAVIDIAN
 CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 90067 JACKSON STATE UNIVERSITY 6279
 YOUNG SCIENTIST PROGRAM
 04/17/1997 - 09/14/1999 FY99: \$0 Total: \$213,803
 Prin. Invest.: R SULLIVAN
 Tech. Officer: GSFC/B WHITE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT13 52713 JACKSON STATE UNIVERSITY 6280
 GRADUATE STUDENT PROGRAM SAME
 08/15/1997 - 08/15/2000 FY99: \$0 Total: \$44,000
 Prin. Invest.: C HARPER
 Tech. Officer: SSC/A R JOYCE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 99015 MISSISSIPPI GULF COAST COMMUNITY COLLEGE 6281
 DEVELOPMENT OF CURRICULUM SUPPORT MATERIALS - AGRICUL-
 TURE, FOREST AND ENVIROMENTAL TECHNOLOGY
 05/11/1999 - 09/30/1999 FY99: \$20,000 Total: \$20,000
 Prin. Invest.: J BRYAN
 Tech. Officer: SSC/A JOYCE
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 1 1990 MISSISSIPPI STATE UNIVERSITY 6282
 GRID GENERATION AND NUMERICAL SOLUTION OF THE NAVIER-STOKES
 EQUATIONS OF UNSTRUCTUREDGRIDS
 01/12/1998 - 01/11/2000 FY99: \$125,000 Total: \$250,000
 Prin. Invest.: D L WITFIELD, D L MARCUM
 Tech. Officer: LARC/J L THOMAS
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2003 **MISSISSIPPI STATE UNIVERSITY** **6283**
 A STRIP-YIELD MODEL FOR PREDICTING THE GROWTH OF PART-
 THROUGH CRACKS UNDER CYCLIC LOADING
 02/04/1998 - 02/03/2000 FY99: \$64,782 Total: \$129,683
Prin. Invest.: S R DANIEWCZ
Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU
CASE Category: 46 - MECHANICAL ENGR

NAG 1 2038 **MISSISSIPPI STATE UNIVERSITY** **6284**
 INVESTIGATION OF ROBUST DESIGN CONCEPTS FOR COMPO- SITE
 ROTORCRAFT FUSELAGE STRUCTURES
 03/26/1998 - 12/31/1999 FY99: \$40,607 Total: \$83,757
Prin. Invest.: M RAIS-BHANI
Tech. Officer: LARC/D J BAKER, LARC/J H STARNES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1144 **MISSISSIPPI STATE UNIVERSITY** **6285**
 PHYSICS-BASED MANEUVERING PREDICTION OF COMMUTER AIRCRAFT
 07/22/1997 - 07/31/1998 FY99: \$0 Total: \$100,000
Prin. Invest.: D L WHITFIELD, L K TAYLOR, W R BRILEY
Tech. Officer: ARC/S S YOON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1211 **MISSISSIPPI STATE UNIVERSITY** **6286**
 TWO LEVEL MIDDLEWARE ON QOS-BASED NETWORK IN SUPPORT OF
 NASA-AMES IPG
 05/07/1998 - 09/30/1998 FY99: \$0 Total: \$150,000
Prin. Invest.: S SKJELLUM
Tech. Officer: ARC/S SAINI
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1232 **MISSISSIPPI STATE UNIVERSITY** **6287**
 PHYSICS-BASED MANEUVERING PREDICTION OF TILT ROTOR AIRCRAFT
 06/24/1998 - 10/31/1999 FY99: \$70,000 Total: \$369,388
Prin. Invest.: D L WHITFIELD, L K TAYLOR, W R BRILEY
Tech. Officer: ARC/S S YOON, ARC/W F FREIREISEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1699 **MISSISSIPPI STATE UNIVERSITY** **6288**
 COMPUTATIONAL FLUID DYNAMICS OF ROTATING MACHINERY USING
 TRUBO
 01/23/1995 - 11/09/1999 FY99: \$60,000 Total: \$479,999
Prin. Invest.: J M JANUS, D WHITFIELD, T M SWAFFORD
Tech. Officer: GRC/D L HUFF
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1712 **MISSISSIPPI STATE UNIVERSITY** **6289**
 COMPUTATIONS OF ROTOR-STATOR INTERACTIONS USING THE
 NAVIER-STOKES EQUATION
 02/21/1995 - 02/06/2000 FY99: \$100,000 Total: \$445,000
Prin. Invest.: D L WHITFIELD
Tech. Officer: GRC/E R MCFARLAND
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2073 **MISSISSIPPI STATE UNIVERSITY** **6290**
 HIGH-VOLTAGE SIC POWER DEVICE FIELD TERMINATIONS HIGH-VOLTAGE
 SIC POWER DEVICE FIELD TERMINATIONS
 09/05/1997 - 08/11/1998 FY99: -\$123 Total: \$4,830
Prin. Invest.: S E SADDOW, M S MAZZOLA
Tech. Officer: GRC/D J LARKIN
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2176 **MISSISSIPPI STATE UNIVERSITY** **6291**
 DEVELOPMENT OF A PARALLEL TURBOMACHINERY FLOW SOLVER
 06/22/1998 - 05/20/2000 FY99: \$64,000 Total: \$95,000
Prin. Invest.: W R BRILEY
Tech. Officer: GRC/E R MCFARLAND
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2235 **MISSISSIPPI STATE UNIVERSITY** **6292**
 INTEGRATED GEOMETRY/GRID/SIMULATION SOFTWARE FOR SINGLE AND
 MULTI-ELEMENT AIRFOILS WITH ICE ACCRETION
 02/22/1999 - 11/30/1999 FY99: \$50,313 Total: \$50,313
Prin. Invest.: B K SONI
Tech. Officer: GRC/Y K CHOO
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6519 **MISSISSIPPI STATE UNIVERSITY** **6293**
 SOUTHERN REMOTE SENSING RESEARCH AND TRAINING CENTER
 10/24/1997 - 09/30/1999 FY99: \$0 Total: \$440,656
Prin. Invest.: D L EVANS
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 965 **MISSISSIPPI STATE UNIVERSITY** **6294**
 PROTEIN RESEARCH
 06/15/1993 - 06/30/1998 FY99: -\$3,077 Total: \$436,923
Prin. Invest.: W WILSON
Tech. Officer: MSFC/D CARTER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1158 **MISSISSIPPI STATE UNIVERSITY** **6295**
 FUNDING PREDICTION PROTEIN CRYSTALLIZATION
 07/21/1995 - 05/31/1999 FY99: \$38,000 Total: \$338,000
Prin. Invest.: W W WILSON
Tech. Officer: MSFC/D C CARTER, MSFC/T Y MILLER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1566 **MISSISSIPPI STATE UNIVERSITY** **6296**
 NOVEL APPROACHES REGARDING PROTEIN SOLUBILITY
 02/23/1999 - 11/30/2002 FY99: \$116,000 Total: \$116,000
Prin. Invest.: W W WILSON, A ASONOV
Tech. Officer: MSFC/B V GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 983 **MISSISSIPPI STATE UNIVERSITY** **6297**
 MONITORING 10 MICRON SIZED BUBBLE IN MODEL TISSUE
 01/09/1998 - 01/11/2000 FY99: \$20,000 Total: \$50,000
Prin. Invest.: J GILBERT
Tech. Officer: JSC/M POWELL
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 997 **MISSISSIPPI STATE UNIVERSITY** **6298**
 PRECISION OPERATIONAL AMPLIFIER DESIGN IN 0.5 MICRON CMOS
 TECHNOLOGY
 03/26/1998 - 09/30/1999 FY99: \$0 Total: \$19,900
Prin. Invest.: B J BLALOCK
Tech. Officer: JSC/R L SHULER
CASE Category: 45 - ELECTRICAL ENGR

NAG13 99018 **MISSISSIPPI STATE UNIVERSITY** **6299**
 LEAF AREA AND VOLUME ESTIMATES IN LOBLOLLY PINE FOREST DERIVED
 FROM AERIAL IMAGING LIDAR
 07/30/1999 - 07/29/2000 FY99: \$83,886 Total: \$83,886
 Prin. Invest.: S ROBERTS
 Tech. Officer: SSC/R MCKELLIP
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS13 564 **MISSISSIPPI STATE UNIVERSITY** **6300**
 RD TASKS IN SUPPOT OF NASA AND RESIDENT AGENCIES
 \$2,500,000.00
 03/18/1993 - 09/30/1999 FY99: \$0 Total: \$11,307,093
 Prin. Invest.: M DINGERSON, J BIVENS
 Tech. Officer: SSC/D POWE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS13 98033 **MISSISSIPPI STATE UNIVERSITY** **6301**
 RESEARCH & DEVELOPMENT NASA AND RESIDENT AGENCIES
 03/23/1998 - 03/22/2003 FY99: \$2,880,817 Total: \$5,909,156
 Prin. Invest.: L STABLER, G RAYBORN, D WIESENBERG
 Tech. Officer: SSC/K SHARP
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 1 286 **MISSISSIPPI STATE UNIVERSITY** **6302**
 AERO-STRUCTURAL INTERACTION, ANALYSIS, AND SHAPE SENSITIVITY
 04/17/1998 - 12/31/1999 FY99: \$40,000 Total: \$100,000
 Prin. Invest.: J C NEWMAN
 Tech. Officer: LARC/W K ANDERSON
 CASE Category: 11 - ASTRONOMY

NCC 1 330 **MISSISSIPPI STATE UNIVERSITY** **6303**
 SITUATION AWARENESS AND LEVELS OF AUTOMATION
 03/31/1999 - 12/31/1999 FY99: \$71,000 Total: \$71,000
 Prin. Invest.: D B KABER
 Tech. Officer: LARC/P C SCHUTTE, LARC/A T POPE
 CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 3 221 **MISSISSIPPI STATE UNIVERSITY** **6304**
 LOW-VELOCITY, OPPOSED-FLOW FLAME SPREAD IN A TRANSPORT-CONTROLLED, MICROGRAVITY ENVIRONMENT
 06/19/1991 - 08/12/1999 FY99: \$0 Total: \$714,771
 Prin. Invest.: R A ALTENKIRCH, S BHATTA CHARJEE
 Tech. Officer: GRC/J A SALZMAN, GRC/H D ROSS
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 3 667 **MISSISSIPPI STATE UNIVERSITY** **6305**
 REFLIGHT OF THE SOLID SURFACE COMBUSTION EXPERIMENT WITH
 EMPHASIS ON FLAME RADIATION NEAR EXTINCTION
 02/02/1999 - 09/16/1999 FY99: \$112,609 Total: \$112,609
 Prin. Invest.: R A ALTENKIRCH
 Tech. Officer: GRC/K R SACKSTEDER
 CASE Category: 49 - ENGINEERING, OTHER

NCC13 99001 **MISSISSIPPI STATE UNIVERSITY** **6306**
 ROLE OF LAND-GRANT UNIVERSITY IN APPLICATIONS OF REMOTE SENSING
 02/19/1999 - 02/21/2001 FY99: \$7,500,000 Total: \$7,500,000
 Prin. Invest.: D SHAW, N M COX
 Tech. Officer: SSC/H CARR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 51 **MISSISSIPPI VALLEY STATE UNIV.** **6307**
 INCORPORATING INFORMATION TECHNOLOGY TO ENTERPRISE ZONES
 AND EMPOWERMENT COMMUNITY SCHOOL SYSTEMS
 06/30/1997 - 03/31/2000 FY99: \$79,354 Total: \$381,018
 Prin. Invest.: S J WHITE
 Tech. Officer: JSC/N SULLIVAN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 98004 **MISSISSIPPI VALLEY STATE UNIV.** **6308**
 RESPONSE OF A LEAF AND CANOPY SPECTRAL REFLECTANCE TO
 DROUGHT STRESS IN SOYBEANS
 03/31/1998 - 03/30/2000 FY99: \$99,944 Total: \$199,882
 Prin. Invest.: R BAHADUR
 Tech. Officer: JSC/G CARTER
 CASE Category: 55 - AGRICULTURE

NAG13 99003 **MISSISSIPPI VALLEY STATE UNIV.** **6309**
 IMPROVING TEACHERS AND STUDENTS ACHIEVEMENT IN MATHEMATICS
 AND SCIENCE
 02/17/1999 - 02/17/2002 FY99: \$194,978 Total: \$194,978
 Prin. Invest.: S J WHITE
 Tech. Officer: SSC/N S SULLIVAN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 99026 **MISSISSIPPI VALLEY STATE UNIV.** **6310**
 RESPONSE OF SOYBEAN LEAF & CANOPY SPECTRAL REFLECTANCE TO
 CHELATE ASSISTED LEAD EXTRACT FROM
 09/01/1999 - 08/31/2000 FY99: \$100,000 Total: \$100,000
 Prin. Invest.: R BAHADUR
 Tech. Officer: JSC/R TRAVIS
 CASE Category: 55 - AGRICULTURE

NAG 2 1204 **UNIVERSITY OF MISSISSIPPI - MEDICAL CENTER** **6311**
 OTOLITH-CANAL CONVERGENCE IN VESTIBULAR NUCLEI NEURONS
 04/06/1998 - 10/31/1999 FY99: \$97,630 Total: \$167,365
 Prin. Invest.: J D DICKMAN
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3884 **UNIVERSITY OF MISSISSIPPI - MEDICAL CENTER** **6312**
 ADAPTIVE VISUAL VESTIBULAR MECHANISMS AND GRAVITY
 03/04/1997 - 06/30/1999 FY99: \$0 Total: \$164,270
 Prin. Invest.: D ANGELAKI
 Tech. Officer: GSFC/V SCHNEIDER
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 7671 **UNIVERSITY OF MISSISSIPPI - MEDICAL CENTER** **6313**
 FUNDING FOR THE UTILITY OF LOW COST THERMAL SENSORS IN
 ARCHAEOLOGICAL RESEARCH (SENH98-0125)
 09/01/1998 - 02/29/2000 FY99: \$75,000 Total: \$100,000
 Prin. Invest.: J K JOHNSON
 Tech. Officer: GSFC/H V FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4507 **UNIVERSITY OF MISSISSIPPI - MEDICAL CENTER** **6314**
 OTOLITH CANAL CONVERGENCE IN VESTIBULAR NUCLEI NEURONS
 05/19/1995 - 04/30/1998 FY99: -\$5 Total: \$117,452
 Prin. Invest.: J D DICKMAN
 Tech. Officer: HQ/T K SCOTT
 CASE Category: 59 - LIFE SCIENCE, OTHER

NASA'S UNIVERSITY PROGRAM

MISSOURI

NCC 5 405 UNIVERSITY OF MISSISSIPPI - UNIVERSITY 6315
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/17/1999 - 07/31/2000 FY99: \$225,000 Total: \$225,000
Prin. Invest.: P SUKANEK
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40032 UNIVERSITY OF MISSISSIPPI - UNIVERSITY 6316
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 02/13/1997 - 02/29/2000 FY93: \$256,250 Total: \$717,500
Prin. Invest.: M R DINGERSON
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT13 52705 UNIVERSITY OF MISSISSIPPI - UNIVERSITY 6317
 SURFACE EFFECTS OF THE SOLID FUEL GRAIN ON COM- BUSTION
 INSTABILITY IN THE HYBRID ROCKET ENGINE
 05/23/1996 - 08/01/1998 FY99: -\$9,538 Total: \$34,462
Prin. Invest.: P SUKANEK
Tech. Officer: SSC/A JOYCE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 4570 UNIVERSITY OF SOUTHERN MISSISSIPPI 6318
 OPTICAL ASSESSMENT OF BIOGEOCHEMICAL PROPERTIES IN APPLICA-
 TION TO MULTI-SPECTRAL AND HIGH RESOLUTION
 07/23/1997 - 07/14/2000 FY99: \$36,000 Total: \$220,379
Prin. Invest.: S LOHRENZ
Tech. Officer: GSFC/J YODER
CASE Category: 33 - OCEANOGRAPHY

NAG 8 1466 UNIVERSITY OF SOUTHERN MISSISSIPPI 6319
 FRONTAL POLYMERIZATION IN MICROGRAVITY
 02/10/1998 - 01/31/2002 FY99: \$160,000 Total: \$256,250
Prin. Invest.: J A POJMAN
Tech. Officer: MSFC/W S SPEARMAN
CASE Category: 13 - PHYSICS

NGT13 52716 UNIVERSITY OF SOUTHERN MISSISSIPPI 6320
 1998 NASA/ASEE SUMMER FACULTY FELLOWSHIP PROGRAM AT SSC
 04/07/1998 - 04/06/1999 FY99: \$0 Total: \$200,000
Prin. Invest.: J MILLER
Tech. Officer: SSC/A JOYCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

MISSOURI

NAG 1 1983 SAINT LOUIS UNIVERSITY 6321
 DEV OF A PROBABILITY DISTRIBUTION FUNCTION (PDF) BASED TRAN-
 SITION MODEL
 12/17/1997 - 12/31/1998 FY99: -\$4,291 Total: \$19,308
Prin. Invest.: W D THACKER
Tech. Officer: LARC/T B GATSKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2245 SAINT LOUIS UNIVERSITY 6322
 INVESTIGATION OF POTENTIAL THERMAL PROCESSING TECH NIQUES FOR
 THE ENHANCEMENT OF PS300 HIGHTEMPERAT
 03/22/1999 - 10/14/1999 FY99: \$21,000 Total: \$21,000
Prin. Invest.: P A BENOY
Tech. Officer: GRC/C CORTE
CASE Category: 46 - MECHANICAL ENGR

NAG 5 4538 SAINT LOUIS UNIVERSITY 6323
 SKELETAL COLLAGEN TURNOVER BY THE OSTEOBLAST
 05/06/1997 - 02/28/1999 FY99: \$0 Total: \$100,450
Prin. Invest.: N PARTRIDGE
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 884 SAINT LOUIS UNIVERSITY 6324
 EFFECT OF MICROGRAVITY ON BONE DEVELOPMENT
 02/08/1995 - 12/31/1997 FY99: -\$330 Total: \$206,436
Prin. Invest.: N C PARTRIDGE
Tech. Officer: ARC/D A REISS-BUBENHEIM, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 50047 SAINT LOUIS UNIVERSITY 6325
 CHARACTERIZATION OF AN OSTEOBLASTIC SCAVENGER RECE
 07/17/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: N C PARTRIDGE
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50201 SAINT LOUIS UNIVERSITY 6326
 TRANSCRIPTIONAL REGULATION OF DIFFERENTIATING OSTEOBAST
 07/02/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: N C PARTRIDGE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 2 1372 UNIVERSITY OF MISSOURI - COLUMBIA 6327
 SIGNALING OF MUSCLE ATROPHY WITH UNLOADING
 08/17/1999 - 12/31/1999 FY99: \$54,249 Total: \$54,249
Prin. Invest.: F W BOOTH
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3778 UNIVERSITY OF MISSOURI - COLUMBIA 6328
 ICE SHEET ELEVATION CHANGE STUDIES USING IMPROVED
 02/12/1997 - 12/31/1998 FY99: \$0 Total: \$87,722
Prin. Invest.: C A KLUEVER
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3900 UNIVERSITY OF MISSOURI - COLUMBIA 6329
 INTERCOMPARISON, VISUALIZATION AND ANALYSIS TESTBE ASSIMILATED
 DATA SETS AND SATELLITE DATA.
 03/03/1997 - 02/29/2000 FY99: \$118,939 Total: \$405,838
Prin. Invest.: K PALANIAPPAN
Tech. Officer: GSFC/A NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4607 UNIVERSITY OF MISSOURI - COLUMBIA 6330
 VESTIBULAR ONTOGENY, ADAPTATION, AND THE EFFECTS O LOADING IN
 THE RAT
 05/19/1997 - 05/14/2000 FY99: \$100,706 Total: \$239,086
Prin. Invest.: T A JONES
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6283 UNIVERSITY OF MISSOURI - COLUMBIA 6331
 INTELLIGENT VISUALIZATION OF EARTH SCIENCE DATASET STRUCTURES
 AND DATA COMPRESSION STRATEGIES
 09/26/1997 - 12/31/1999 FY99: \$0 Total: \$170,000
Prin. Invest.: X ZHAUNG
Tech. Officer: GSFC/G ASRAR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6685 UNIVERSITY OF MISSOURI - COLUMBIA 6332
 GPS MONITORING OF STRAIN ACCUMULATION IN THE NEW MADRID SEISMIC ZONE
 11/25/1997 - 05/31/1999 FY99: \$0 Total: \$17,916
Prin. Invest.: J F ENGELN
Tech. Officer: GSFC/H FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6698 UNIVERSITY OF MISSOURI - COLUMBIA 6333
 HRI OBSERVATIONS OF DISTANT ABELL CLUSTERS
 04/30/1998 - 06/30/1999 FY99: \$0 Total: \$10,000
Prin. Invest.: J O BURNS
Tech. Officer: GSFC/R PETRE
 CASE Category: 11 - ASTRONOMY

NAG 5 6714 UNIVERSITY OF MISSOURI - COLUMBIA 6334
 LONG TERM ELEVATION CHANGE OF THE GREENLAND ICE SHEET FROM SATELLITE RADAR ALTIMETRY
 12/10/1997 - 06/30/1999 FY99: \$0 Total: \$186,093
Prin. Invest.: C H DAVIS
Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6772 UNIVERSITY OF MISSOURI - COLUMBIA 6335
 INVESTIGATION OF A LARGE, COMPLETE SAMPLE OF GALAXY GROUPS USING THE ROSAT ALL-SKY SURVEY
 01/22/1998 - 01/31/2000 FY99: \$43,630 Total: \$90,767
Prin. Invest.: J BURNS *Prin. Invest.:* NONE
Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 6837 UNIVERSITY OF MISSOURI - COLUMBIA 6336
 GREENLAND ICE SHEET ELEVATION CHANGE STUDIES USING RADAR ALTIMETRY WITH IMPROVED ORBIT ERROR ANALYSIS
 01/08/1998 - 12/31/1999 FY99: \$76,421 Total: \$150,214
Prin. Invest.: D KLUEVER
Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6968 UNIVERSITY OF MISSOURI - COLUMBIA 6337
 UNIVERSITY OF MISSOURI INTERDISCIPLINARY REMOTE SENSING PROGRAM: DEVELOPMENT AND DELIVERY OF MULTISOURCE
 03/10/1998 - 02/29/2000 FY99: \$0 Total: \$90,610
Prin. Invest.: K PALANIAPPAN
Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8344 UNIVERSITY OF MISSOURI - COLUMBIA 6338
 BAYESIAN HIERARCHICAL AIR-SEA INTERACTION MODELING: DEVELOPMENT AND APPLICATION IN THE LABR
 04/13/1999 - 05/31/2000 FY99: \$19,723 Total: \$19,723
Prin. Invest.: C K WIKLE
Tech. Officer: GSFC/E LINDSTROM
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8557 UNIVERSITY OF MISSOURI - COLUMBIA 6339
 ELEVATION CHANGE OF THE SOUTHERN GREENLAND ICE SHEET: INTERPRETATION
 06/18/1999 - 06/30/2000 FY99: \$26,439 Total: \$26,439
Prin. Invest.: C DAVIS
Tech. Officer: GSFC/E LINDSTROM
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 915 UNIVERSITY OF MISSOURI - COLUMBIA 6340
 THERMAL MODELING FOR SPACESUIT DESIGN/CONTROL
 11/06/1996 - 09/30/1999 FY99: \$60,896 Total: \$218,593
Prin. Invest.: S NAIR
Tech. Officer: JSC/C LIU
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG10 224 UNIVERSITY OF MISSOURI - COLUMBIA 6341
 MICROGRAVITY EFFECTS DURING FERTILIZATION, CELL DIVISION, DEVELOPMENT, AND CALCIUM METABOLISM
 09/16/1997 - 09/30/1998 FY99: \$0 Total: \$49,048
Prin. Invest.: H SCHAFFR
Tech. Officer: KSCW KNOTT
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG13 99014 UNIVERSITY OF MISSOURI - COLUMBIA 6342
 INSTITUTE FOR THE COMMERCIAL DEVELOPMENT OF REMOTE SENSING TECHNOLOGY (ICREST)
 04/19/1999 - 04/18/2000 FY99: \$1,000,000 Total: \$1,000,000
Prin. Invest.: D BLANCHARD
Tech. Officer: JSC/R MCKELLIP
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50205 UNIVERSITY OF MISSOURI - COLUMBIA 6343
 VASCULAR CONTROL OF SKELETAL MUSCLE BLOOD FLOW AFTER SIMULATED MICROGRAVITY (GSRP STUDENT)
 07/09/1998 - 06/30/2001 FY99: \$0 Total: \$22,000
Prin. Invest.: M LAUGHLIN
Tech. Officer: HQ/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52850 UNIVERSITY OF MISSOURI - COLUMBIA 6344
 ROBUST GUIDANCE SCHEMES FOR LOW THRUST EARTH ORBIT
 07/27/1998 - 08/14/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C A KLUEVER
Tech. Officer: MSFC/J F DOWDY
 CASE Category: 46 - MECHANICAL ENGR

NAG 1 1632 UNIVERSITY OF MISSOURI - ROLLA 6345
 PARTICULATE CHARACTERIZATION OF COMMERCIAL JET ENGINE EMISSIONS AT CRUISE
 07/06/1994 - 01/05/1998 FY99: -\$1 Total: \$407,402
Prin. Invest.: D E HAGEN
Tech. Officer: LARC/W R COFER, LARC/W L GROSE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2167 UNIVERSITY OF MISSOURI - ROLLA 6346
 PERFORMANCE INVESTIGATION & CHARACTERIZATION OF SCRAMJET & DUAL-MODE SCRAMJET FLOW-FIELDS
 03/19/1999 - 09/30/1999 FY99: \$63,012 Total: \$63,012
Prin. Invest.: D W RIGGINS
Tech. Officer: LARC/C R MCCLINTON, LARC/S H STACK
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2109 UNIVERSITY OF MISSOURI - ROLLA 6347
 EXTENSION OF THE AFT FAN DUCT ACOUSTIC RADIATION CODES
 01/15/1998 - 01/31/2000 FY99: \$66,065 Total: \$129,683
 Prin. Invest.: W EVERSMAN
 Tech. Officer: GRC/E ENVIA
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2185 UNIVERSITY OF MISSOURI - ROLLA 6348
 ADVANCED EXTRACTIVE AEROSOL SAMPLING
 07/27/1998 - 02/17/2000 FY99: \$93,287 Total: \$163,149
 Prin. Invest.: P D WHITEFIELD, D E HAGEN
 Tech. Officer: GRC/C C WEY
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2186 UNIVERSITY OF MISSOURI - ROLLA 6349
 A STUDY OF THE PRODUCTION & GROWTH OF AEROSOL AS A FUNCTION
 OF JET FUEL SULFUR CONTENT IN WELL DEFIN
 07/28/1998 - 04/27/2000 FY99: \$13,530 Total: \$54,119
 Prin. Invest.: P D WHITEFIELD
 Tech. Officer: GRC/C C WEY
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2257 UNIVERSITY OF MISSOURI - ROLLA 6350
 AEROSOL CHARACTERISTICS (I) INSTRUMENT INTERCOMPARISON (II)
 GROUND-BASED EMISSIONS (III) CORRE. STU
 04/12/1999 - 04/30/2000 FY99: \$45,000 Total: \$45,000
 Prin. Invest.: P D WHITEFIELD
 Tech. Officer: GRC/C WEY
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1465 UNIVERSITY OF MISSOURI - ROLLA 6351
 KINETICS OF NUCLEATION AND CRYSTAL GROWTH IN GLASS FORMING
 METALS IN MICROGRAVITY
 02/10/1998 - 01/31/2002 FY99: \$115,000 Total: \$211,250
 Prin. Invest.: D E DAY, C S RAY
 Tech. Officer: MSFC/M PURVEY
 CASE Category: 13 - PHYSICS

NCC 3 343 UNIVERSITY OF MISSOURI - ROLLA 6352
 PARTICULATE EMISSIONS CHARACTERIZATION FOR HSCT RELATED TEST-
 SON: FLAME TUBE, ANNULAR SECTOR COMBUSTOR
 04/25/1994 - 12/03/1999 FY99: \$129,999 Total: \$974,999
 Prin. Invest.: P WHITEFIELD, D HAGEN, H LILLENFELD
 Tech. Officer: GRC/R W NIEDZWIECKI, GRC/K P KUNDU
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 40057 UNIVERSITY OF MISSOURI - ROLLA 6353
 NATL SPACE GRANT
 04/24/1996 - 09/30/1997 FY99: -\$1,329 Total: \$169,671
 Prin. Invest.: B P SELBERG
 Tech. Officer: HQ/L KEFFER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40060 UNIVERSITY OF MISSOURI - ROLLA 6354
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATL COLLEGE
 AND FELLOWSHIP PROGRAM.
 03/04/1997 - 02/28/2000 FY99: \$212,500 Total: \$595,000
 Prin. Invest.: B P SELBERG
 Tech. Officer: GSFC/L KEFFER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1656 UNIVERSITY OF MISSOURI - SAINT LOUIS 6355
 COMPUTER-AIDED POLYMER DESIGN FOR NASA'S HIGH-SPEED CIVILIAN
 TRANSPORT
 11/18/1994 - 01/31/1999 FY99: \$0 Total: \$150,375
 Prin. Invest.: W J WELSH
 Tech. Officer: LARC/J A HINKLEY, LARC/T S GATES
 CASE Category: 12 - CHEMISTRY

NAG 5 6091 UNIVERSITY OF MISSOURI - SAINT LOUIS 6356
 METHANE ABSORPTION SPECTROSCOPY IN THE 700-1000NM RANGE
 DEPENDENCES & DETERMINATIONS OF THE INTER-BA
 08/26/1997 - 06/14/2000 FY99: \$31,250 Total: \$100,000
 Prin. Invest.: D O'BRIEN, NONE
 Tech. Officer: GSFC/J BERGSTRALH
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 2474 UNIVERSITY OF MISSOURI - SAINT LOUIS 6357
 METHANE ABSORPTION SPECTROSCOPY
 05/23/1991 - 03/31/1999 FY99: \$0 Total: \$242,848
 Prin. Invest.: J J O'BRIEN
 Tech. Officer: HQ/J BERGSTRALH
 CASE Category: 11 - ASTRONOMY

NAGW 5243 UNIVERSITY OF MISSOURI-KANSAS CITY 6358
 RESEARCH ENTITLED LONG TERM ELEVATION CHANGE OF THE GREEN-
 LAND ICE SHEETS FROM STELLAR RADAR
 11/21/1996 - 12/31/1997 FY99: -\$162 Total: \$165,948
 Prin. Invest.: C H DAVIS Prin. Invest.: NONE
 Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 3 52303 UNIVERSITY OF MISSOURI-KANSAS CITY 6359
 GRADUATE STUDENT RESEARCH PROGRAM - HPCC
 07/20/1995 - 07/31/1998 FY99: \$0 Total: \$66,000
 Prin. Invest.: G D GUTE
 Tech. Officer: GRC/L SHAW
 CASE Category: 46 - MECHANICAL ENGR

NAG 1 1848 WASHINGTON UNIVERSITY - ST. LOUIS 6360
 ULTRASONIC NONDESTRUCTIVE EVALUATION TECHNIQUES APPLIED TO
 THE QUANTITATIVE CHARACTERIZATION OF
 06/12/1996 - 06/11/1998 FY99: -\$1 Total: \$100,000
 Prin. Invest.: J G MILLER
 Tech. Officer: LARC/W P WINFREE, LARC/P H JOHNSTON
 CASE Category: 13 - PHYSICS

NAG 2 945 WASHINGTON UNIVERSITY - ST. LOUIS 6361
 CHRONIC RECORDING OF OTOLITH NERVES IN MICROGRAVITY
 12/16/1994 - 11/30/1999 FY99: \$305,540 Total: \$1,029,992
 Prin. Invest.: S M HIGHSTEIN
 Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1910 WASHINGTON UNIVERSITY - ST. LOUIS 6362
 GAS - PHASE COMBUSTION SYNTHESIS OF METAL AND CERAMIC NANO-
 PARTICLES
 06/24/1996 - 06/24/2000 FY99: \$88,000 Total: \$264,551
 Prin. Invest.: R L AXELBAUM, B H CHAO
 Tech. Officer: GRC/S A GOKOGLE
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 2982 WASHINGTON UNIVERSITY - ST. LOUIS 6363
 CHANGES ASSOCIATED WITH LEVEE BREAK LANDFORMS AND DEPOSITS
 FROM THE 1993 MISSOURI RIVER FLOOD
 06/28/1995 - 07/31/1999 FY99: \$0 Total: \$213,240
 Prin. Invest.: R E ARVIDSON
 Tech. Officer: GSFC/H V FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3657 WASHINGTON UNIVERSITY - ST. LOUIS 6364
 STRUCTURE AND EVOLUTION OF OUTER PLANET SATELLITES
 03/19/1997 - 10/31/1999 FY99: \$30,900 Total: \$91,377
 Prin. Invest.: W B MCKINNON
 Tech. Officer: GSFC/P G ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3870 WASHINGTON UNIVERSITY - ST. LOUIS 6365
 SURFACE PROCESSES ON VENUS AND MARS
 02/11/1997 - 09/30/1999 FY99: \$163,000 Total: \$495,154
 Prin. Invest.: R E ARVIDSON
 Tech. Officer: GSFC/P G ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4098 WASHINGTON UNIVERSITY - ST. LOUIS 6366
 ISOTOPIC STRUCTURES AND FINE-SCALE CHRONOLOGY IN P
 06/23/1997 - 03/31/2000 FY99: \$151,583 Total: \$321,000
 Prin. Invest.: D A PODOSEK
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4172 WASHINGTON UNIVERSITY - ST. LOUIS 6367
 ANALYTICAL, EXPERIMENTAL, AND MODELING STUDIES OF IGNEOUS
 ROCKS
 04/09/1997 - 11/30/1999 FY99: \$250,000 Total: \$740,000
 Prin. Invest.: D A HASKIN
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 12 - CHEMISTRY

NAG 5 4173 WASHINGTON UNIVERSITY - ST. LOUIS 6368
 LUNAR AND PLANETARY SURFACE DYNAMICS AND EARLY HIS
 06/02/1997 - 12/14/1999 FY99: \$215,000 Total: \$645,000
 Prin. Invest.: D HOHENBERG
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 12 - CHEMISTRY

NAG 5 4323 WASHINGTON UNIVERSITY - ST. LOUIS 6369
 KINETICS OF THERMOCHEMICAL GAS-SOLID REACTIONS IMP RETENTION
 IN THE SOLAR NEBULA: IMPLICATIONS FOR
 04/09/1997 - 01/31/2001 FY99: \$75,000 Total: \$177,814
 Prin. Invest.: D FEGLEY
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4325 WASHINGTON UNIVERSITY - ST. LOUIS 6370
 DYNAMICAL INVESTIGATION OF PLANETARY SATELLITE CAP
 04/09/1997 - 06/30/1999 FY99: \$5,079 Total: \$59,710
 Prin. Invest.: D B MCKINNON
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4435 WASHINGTON UNIVERSITY - ST. LOUIS 6371
 PARTICIPATION IN THE DATA ANALYSIS AND SCIENCE ACT ORBITING
 LASER ALTIMETER (MOLA) & THE MARS GLOBAL
 04/28/1997 - 12/31/2000 FY99: \$112,500 Total: \$382,500
 Prin. Invest.: R J PHILLIPS
 Tech. Officer: GSFC/D E SMITH
 CASE Category: 99 - MULTIINTERDISCIPL, OTHER

NAG 5 4448 WASHINGTON UNIVERSITY - ST. LOUIS 6372
 PLANETARY INTERIOR MODELLING AND TECTONIC IMPLICAT
 05/08/1997 - 12/31/1999 FY99: \$112,000 Total: \$326,000
 Prin. Invest.: D J PHILLIPS
 Tech. Officer: GSFC/P ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4493 WASHINGTON UNIVERSITY - ST. LOUIS 6373
 SOLID STATE AND MASS SPECTROMETRIC MEASUREMENTS OF MATERI-
 ALS
 05/13/1997 - 02/28/1999 FY99: \$313,333 Total: \$1,800,000
 Prin. Invest.: D M WALKER
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 12 - CHEMISTRY

NAG 5 4564 WASHINGTON UNIVERSITY - ST. LOUIS 6374
 KINETICS OF THERMOCHEMICAL REACTIONS IMPORTANT IN SULFUR
 CYCLE
 05/29/1997 - 12/31/1999 FY99: \$88,580 Total: \$257,261
 Prin. Invest.: D FEGLEY
 Tech. Officer: GSFC/D BOGAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4565 WASHINGTON UNIVERSITY - ST. LOUIS 6375
 CHEMICAL WEATHERING KINETICS OF BASALT ON VENUS
 05/30/1997 - 02/14/2000 FY99: \$58,710 Total: \$170,874
 Prin. Invest.: D FEGLEY
 Tech. Officer: GSFC/D BOGAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4642 WASHINGTON UNIVERSITY - ST. LOUIS 6376
 RAMAN SPECTROMETER FOR SURFACE IDENTIFICATION OF M COM-
 POUNDS ON SILICATE PLANETS AND SMALL SOLAR-SYS
 06/06/1997 - 06/30/2000 FY99: \$39,221 Total: \$167,390
 Prin. Invest.: D A HASKIN
 Tech. Officer: GSFC/B CAMPBELL
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4820 WASHINGTON UNIVERSITY - ST. LOUIS 6377
 STUDIES OF INTERSTELLAR GRAINS AND SOLAR NEBULA ST
 06/17/1997 - 11/30/1998 FY99: \$0 Total: \$75,000
 Prin. Invest.: D A POSODEK
 Tech. Officer: GSFC/D NAVA
 CASE Category: 11 - ASTRONOMY

NAG 5 5078 WASHINGTON UNIVERSITY - ST. LOUIS 6378
 BASIC RESEARCH ON THE COMPOSITION OF HEAVY COSMIC RAYS: TIGER
 05/03/1996 - 12/31/1999 FY99: \$300,000 Total: \$1,118,000
 Prin. Invest.: R W BINNS
 Tech. Officer: GSFC/H C NEDDLEMAN, GSFC/B A MERRITT
 CASE Category: 13 - PHYSICS

NAG 5 5110 WASHINGTON UNIVERSITY - ST. LOUIS 6379
DEVELOPMENT OF SIFTER WITH SIMULTANEOUS TRACKING AND CALORIMETRY
02/12/1997 - 11/30/1999 FY99: \$100,000 Total: \$410,000
Prin. Invest.: R BINNS
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5114 WASHINGTON UNIVERSITY - ST. LOUIS 6380
A BALLOON-BORNE HARD X-RAY IMAGING SPECTROMETER BASED ON CDZNTZ TECHNOLOGY
04/09/1997 - 03/31/2000 FY99: \$45,000 Total: \$161,000
Prin. Invest.: P L HINK
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5154 WASHINGTON UNIVERSITY - ST. LOUIS 6381
ULTRA HEAVY AND HEAVY COSMIC-RAY MEASUREMENTS ON ACCESS
03/26/1998 - 12/31/1999 FY99: \$23,999 Total: \$101,389
Prin. Invest.: W R BINNS
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5215 WASHINGTON UNIVERSITY - ST. LOUIS 6382
A PROPOSAL FOR CONVERSION OF THE TRANS-IRON GALACTIC ELEMENT RECORDER (TIGER) PIHINK
12/01/1998 - 12/31/1999 FY99: \$228,718 Total: \$228,718
Prin. Invest.: P HINK
Tech. Officer: GSFC/B MERRITT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 6125 WASHINGTON UNIVERSITY - ST. LOUIS 6383
ACOUSTIC COMPOSITION EXPERIMENT FOR DETERMINING H2 RATIO IN THE ATMOSPHERES OF THE JOVIAN PLANETS
08/04/1997 - 07/14/2000 FY99: \$238,987 Total: \$467,327
Prin. Invest.: D FEGLEY
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6291 WASHINGTON UNIVERSITY - ST. LOUIS 6384
DEVELOPMENT OF A "NANOSIMS" ION MICROPROBE SUITABLE ANALYSIS OF RETURNED SAMPLES FROM THE "STARDUST" MIS
09/10/1997 - 11/30/1999 FY99: \$88,333 Total: \$217,791
Prin. Invest.: D WALKER
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6366 WASHINGTON UNIVERSITY - ST. LOUIS 6385
CHEMICAL MODELS OF THE PRESENT AND PRIMORDIAL ATMOSPHERES OF GIANT PLANETS JUPITER, SATURN, URANUS AND NEPTUNE
09/22/1997 - 12/31/1999 FY99: \$57,974 Total: \$162,852
Prin. Invest.: D FEGLEY
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6533 WASHINGTON UNIVERSITY - ST. LOUIS 6386
SEMS: SYSTEM FOR ENVIRONMENTAL MONITORING AND SUSTAINABILITY
10/23/1997 - 09/30/1998 FY99: \$0 Total: \$68,671
Prin. Invest.: R ARVIDSON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6756 WASHINGTON UNIVERSITY - ST. LOUIS 6387
REGIONAL PLANETARY IMAGE FACILITY
12/24/1997 - 12/14/1999 FY99: \$21,000 Total: \$42,001
Prin. Invest.: R ARVIDSON
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6784 WASHINGTON UNIVERSITY - ST. LOUIS 6388
COMPOSITION, LITHOLOGY, AND HETEROGENEITY OF THE LUNAR CRUST USING REMOTE-SENSING OF IMPACT-B
01/28/1998 - 01/31/2000 FY99: \$28,200 Total: \$63,200
Prin. Invest.: B L JOLLIFF
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6865 WASHINGTON UNIVERSITY - ST. LOUIS 6389
CORRELATED WHIPPLE/OSSE OBSERVATIONS OF MRK 421 AND MRK 501
02/18/1998 - 01/31/1999 FY99: \$0 Total: \$12,117
Prin. Invest.: J H BUCKLEY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7140 WASHINGTON UNIVERSITY - ST. LOUIS 6390
OPTICAL DESIGN AND BREADBOARD OF A RAMAN SPECTROMETER
03/13/1998 - 03/31/2001 FY99: \$123,742 Total: \$170,700
Prin. Invest.: L HASKIN
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 7149 WASHINGTON UNIVERSITY - ST. LOUIS 6391
STUDIES OF PRESOLAR MATERIALS AND SOLAR NEBULA STRUCTURE AND EVOLUTION
03/23/1998 - 04/30/2001 FY99: \$122,858 Total: \$163,717
Prin. Invest.: F PODOSEK
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7613 WASHINGTON UNIVERSITY - ST. LOUIS 6392
DYNAMICS OF WETLANDS AMONG ENGINEERED PORTIONS OF MISSOURI RIVER SYSTEM
07/22/1998 - 01/31/2000 FY99: \$120,000 Total: \$180,000
Prin. Invest.: R E ARVIDSON
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7696 WASHINGTON UNIVERSITY - ST. LOUIS 6393
HYDROTHERMAL ECOSYSTEMS IN A PLANETARY CONTEXT
09/17/1998 - 07/31/2001 FY99: \$138,211 Total: \$289,797
Prin. Invest.: E L SHOCK
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 8056 WASHINGTON UNIVERSITY - ST. LOUIS 6394
DEFORMATION OF THE EUROPEAN ICE SHELL BY TIDAL AND CONVECTION STRESSES
01/15/1999 - 01/31/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: W B MCKINNON
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8194 WASHINGTON UNIVERSITY - ST. LOUIS 6395
 ADAPTIVE VISUAL-VESTIBULAR MECHANISMS AND GRAVITY
 05/12/1999 - 06/30/2000 FY99: \$99,999 Total: \$99,999
 Prin. Invest.: D E ANGELAKI
 Tech. Officer: GSFC/C SAWIN
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 8336 WASHINGTON UNIVERSITY - ST. LOUIS 6396
 SOLID STATE AND MASS SPECTROMETRIC MEASUREMENT OF EXTRATER-
 RESTRIAL MATERIALS
 02/24/1999 - 02/29/2000 FY99: \$880,000 Total: \$880,000
 Prin. Invest.: T J BERNATOWICZ
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8536 WASHINGTON UNIVERSITY - ST. LOUIS 6397
 DEVELOPMENT OF HIGH QUANTUM EFFICIENCY UV/BLUE PHO TOCA-
 THODE EPITAXIAL SEMICONDUCTOR HETEROSTRUCTURE
 07/08/1999 - 07/14/2000 FY99: \$285,361 Total: \$285,361
 Prin. Invest.: D LEOPOLD
 Tech. Officer: GSFC/G MUCKLOW
 CASE Category: 12 - CHEMISTRY

NAG 5 8568 WASHINGTON UNIVERSITY - ST. LOUIS 6398
 THE HIGH ENERGY X-RAY IMAGING SURVEY (HEXIS)
 05/24/1999 - 05/31/2000 FY99: \$33,000 Total: \$33,000
 Prin. Invest.: P L HINK
 Tech. Officer: GSFC/L KALUZIENSKI
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 8609 WASHINGTON UNIVERSITY - ST. LOUIS 6399
 SYNTHESIZING LUNAR PROSPECTOR, CLEMENTINE, AND APO LLO
 GEOCHEMICAL DATA TO UNDERSTAND THE GEOLOGY O
 06/10/1999 - 06/30/2000 FY99: \$40,000 Total: \$40,000
 Prin. Invest.: R L KOROTEV
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8717 WASHINGTON UNIVERSITY - ST. LOUIS 6400
 GLOBAL CHEMICAL REACTOR OF PROTOPLANETARY DISK
 08/10/1999 - 07/31/2000 FY99: \$23,000 Total: \$23,000
 Prin. Invest.: J T GLEAVES
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8729 WASHINGTON UNIVERSITY - ST. LOUIS 6401
 PURCHASE AND INSTALLATION OF NANOSIMS 50
 08/10/1999 - 07/31/2000 FY99: \$400,000 Total: \$400,000
 Prin. Invest.: R M WALKER
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 8 1241 WASHINGTON UNIVERSITY - ST. LOUIS 6402
 RESEARCH MICROGRAVITY CRYSTALLIZATION OF HUMAN AN- TITHROM-
 BIN TO IMPROVE STRUCTURAL RESOLUTION/QUAL.
 12/09/1996 - 06/30/1998 FY99: -\$108 Total: \$27,192
 Prin. Invest.: M R WARDELL
 Tech. Officer: MSFC/T Y MILLER, MSFC/D C CARTER
 CASE Category: 12 - CHEMISTRY

NAG 9 1006 WASHINGTON UNIVERSITY - ST. LOUIS 6403
 GENESIS: NOBLE GAS MEASUREMENTS PHASE B
 04/29/1998 - 03/31/2002 FY99: \$70,600 Total: \$109,600
 Prin. Invest.: C M HOHENBERG
 Tech. Officer: JSC/K E CYR
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 1010 WASHINGTON UNIVERSITY - ST. LOUIS 6404
 GENESIS DISCOVERY MISSION
 05/05/1998 - 08/08/2000 FY99: \$20,000 Total: \$35,000
 Prin. Invest.: F A PODOSEK
 Tech. Officer: JSC/E K STANSBERRY
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3344 WASHINGTON UNIVERSITY - ST. LOUIS 6405
 NAGW-3344/WASHINGTON UNIV @ ST LOUIS/LUNAR AND PLANETARY SUR-
 FACE DYNAMICS AND EARLY HISTORY
 01/28/1993 - 09/30/1997 FY99: \$0 Total: \$958,176
 Prin. Invest.: C M HOHENBERG Prin. Invest.: NONE
 Tech. Officer: HQ/H C BRINTON
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3371 WASHINGTON UNIVERSITY - ST. LOUIS 6406
 SOLID STATE AND MASS SPECTROMETRIC MEASUREMENTS OF
 EXTRATERRESTRIAL MATERIALS
 02/10/1993 - 09/30/1997 FY99: -\$2,257 Total: \$3,132,743
 Prin. Invest.: R M WALKER
 Tech. Officer: HQ/J BOYCE
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3874 WASHINGTON UNIVERSITY - ST. LOUIS 6407
 NAGW-3874/B WASH. UNIV. " THEORETICAL FOUND. OF GR AV. PHYSICS
 EXPERIMENTS IN SPACE"
 02/25/1994 - 12/31/1997 FY99: -\$196 Total: \$212,732
 Prin. Invest.: C M WILL
 Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
 CASE Category: 11 - ASTRONOMY

NAGW 4906 WASHINGTON UNIVERSITY - ST. LOUIS 6408
 GEOLOGY OF LUNAR LANDING SITES AND ORIGIN OF BASIN EJECTA
 FROM A CLEMENTINE PERSPECTIVE
 01/29/1996 - 12/31/1997 FY99: \$0 Total: \$99,000
 Prin. Invest.: L A HASKIN
 Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
 CASE Category: 13 - PHYSICS

NCC 2 5159 WASHINGTON UNIVERSITY - ST. LOUIS 6409
 REMOTE SENSING OF AIRCRAFT CONTRAILS USING A FIELD ORTABLE
 DIGITAL ARRAY SCANNED INTERFEROMETER
 09/11/1995 - 12/31/1997 FY99: \$0 Total: \$22,000
 Prin. Invest.: W H SMITH
 Tech. Officer: ARC/P D HAMMER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 3 697 WASHINGTON UNIVERSITY - ST. LOUIS 6410
 FLAE DESIGN - A NOVAL APPROACH TO CLEAN, EFFICIENT DIFFUSION
 FLAMES
 03/26/1999 - 01/13/2003 FY99: \$47,980 Total: \$47,980
 Prin. Invest.: R L AXELBAUM
 Tech. Officer: GRC/D L URBAN
 CASE Category: 49 - ENGINEERING, OTHER

NCC 8 85 WASHINGTON UNIVERSITY - ST. LOUIS 6411
COMPOSITION EFFECTS ON PHASE FORMATION & STABILITY
04/22/1996 - 04/21/2000 FY99: \$115,003 Total: \$419,486
Prin. Invest.: K F KELTON
Tech. Officer: MSFC/D R WOODARD, MSFC/R W ALLEN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 8 154 WASHINGTON UNIVERSITY - ST. LOUIS 6412
COOPERATIVE AGREEMENT ENTITLED "IMAGING CALORIMETER FOR ACCESS (ICA)"
07/10/1998 - 07/09/2000 FY99: \$44,600 Total: \$99,600
Prin. Invest.: P L HINK, M H ISRAEL, R W BINNS
Tech. Officer: MSFC/M CHRISTI, MSFC/M J CHRISTL
CASE Category: 11 - ASTRONOMY

NGT 1 52197 WASHINGTON UNIVERSITY - ST. LOUIS 6413
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
06/09/1998 - 06/30/2000 FY99: \$22,000 Total: \$32,000
Prin. Invest.: K R WATERS
Tech. Officer: LARC/P H JOHNSTON
CASE Category: 13 - PHYSICS

NGT 3 52313 WASHINGTON UNIVERSITY - ST. LOUIS 6414
LOW-TEMPERATURE DEPOSITION OF THIN FILM PHOTOVOLTAIC MATERIALS BY SPRAY CVD & CHEMICAL BATH EPITAXY
06/20/1996 - 06/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: W BUHRO
Tech. Officer: GRC/F MONTEGANI
CASE Category: 43 - CHEMICAL ENGR

NGT 5 50023 WASHINGTON UNIVERSITY - ST. LOUIS 6415
TIGER: A COSMIC RAY DETECTOR USED TO STUDY THE ABU ELEMENTS
08/04/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: SPOSATO
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50030 WASHINGTON UNIVERSITY - ST. LOUIS 6416
COMPOSITIONAL EFFECTS ON TIME DEPENDENT NUCLEATION
08/04/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: K KELTON/CROAT
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50063 WASHINGTON UNIVERSITY - ST. LOUIS 6417
TECTONIC PROCESSES ON ICY SATELLITES
08/15/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: W B MCKINNON/DOMBAR
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50170 WASHINGTON UNIVERSITY - ST. LOUIS 6418
GRADUATE STUDENT RESEARCH IN X-RAY ASTRONOMY
05/22/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: P L HINK/SALVIS
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 - PHYSICS

NGT 5 50240 WASHINGTON UNIVERSITY - ST. LOUIS 6419
GRADUATE STUDENT RSCH IN COSMIC RAY ASTROPHYSICS
06/03/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: M ISRAEL
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

MONTANA

NAG 5 4148 FORT BELKNAP COLLEGE 6420
PRESERVING THE PAST AND THE FUTURE (PACE/MSET)
03/24/1997 - 10/31/1998 FY99: \$0 Total: \$200,000
Prin. Invest.: M TAYLOR
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1018 MONTANA STATE UNIVERSITY 6421
BACTERIAL GROWTH ON SURFACES IN MICROGRAVITY & ON EARTH
10/25/1995 - 04/30/2000 FY99: \$0 Total: \$211,950
Prin. Invest.: B H PYLE, G A MCFETERS
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1323 MONTANA STATE UNIVERSITY 6422
SPATIO-SPECTRAL HOLOGRAPHY FOR HIGH BANDWIDTH CORRELATORS
04/29/1999 - 04/30/2000 FY99: \$1,673,000 Total: \$1,673,000
Prin. Invest.: A E CRAIG
Tech. Officer: ARC/W F BROOKS, ARC/D KOGA
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 3159 MONTANA STATE UNIVERSITY 6423
THERMAL EVOLUTION AND RELATED PROBLEMS OF NEUTRON STRATS
01/24/1996 - 09/30/1999 FY99: \$0 Total: \$56,000
Prin. Invest.: S TSURUTA
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3652 MONTANA STATE UNIVERSITY 6424
MOLECULAR AND GEOCHEMICAL ANALYSIS OF HOT SPRING CROFLEXUS MATS AS STROMATOLITE ANALOGS
03/25/1997 - 10/31/1999 FY99: \$0 Total: \$274,062
Prin. Invest.: M G WARD
Tech. Officer: GSFC/M MEYER
CASE Category: 12 - CHEMISTRY

NAG 5 3688 MONTANA STATE UNIVERSITY 6425
X-RAY AND SPIN VARIABILITY IN NEUTRON STARS AND NE
01/15/1997 - 01/14/1999 FY99: \$0 Total: \$59,416
Prin. Invest.: S K LINK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3750 MONTANA STATE UNIVERSITY 6426
RAPID BACTERIAL TESTING FOR SPACECRAFT WATER
03/10/1997 - 03/14/1999 FY99: \$0 Total: \$200,712
Prin. Invest.: G A MCFETERS
Tech. Officer: GSFC/G FOGLEMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4576 **MONTANA STATE UNIVERSITY** **6427**
 CENTER FOR EDUCATIONAL RESOURCES
 05/13/1997 - 09/30/1999 FY99: \$0 Total: \$999,975
Prin. Invest.: G TUTHILL
Tech. Officer: GSFC/M V PHELPS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6005 **MONTANA STATE UNIVERSITY** **6428**
 CAUSES AND CONSEQUENCES OF LAND-COVER IN A GREATER
 ASSESSMENT, MONITORING AND OUTREACH
 09/11/1997 - 07/14/2000 FY99: \$61,880 Total: \$565,010
Prin. Invest.: A HASEN
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6110 **MONTANA STATE UNIVERSITY** **6429**
 MAGNETIC HELICITY AND THE SOLAR DYNAMO
 07/28/1997 - 07/31/2000 FY99: \$367,486 Total: \$600,409
Prin. Invest.: D CANFIELD
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7296 **MONTANA STATE UNIVERSITY** **6430**
 TOPOLOGY AND RECONNECTION IN A SURVEY OF X-RAY BRIGHT POINTS
 04/13/1998 - 04/30/1999 FY99: \$0 Total: \$39,741
Prin. Invest.: D W LONGCOPE
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7877 **MONTANA STATE UNIVERSITY** **6431**
 APPLICATION OF THREE-DIMENSIONAL, TIME DEPENDENT MODELING TO
 SURVEY OF X-RAY BRIGHT POINTS.
 11/30/1998 - 12/14/1999 FY99: \$47,815 Total: \$47,815
Prin. Invest.: C C KANKELBORG
Tech. Officer: GSFC/J GURMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8807 **MONTANA STATE UNIVERSITY** **6432**
 CENTER FOR STUDYING LIFE IN EXTREME ENVIRONMENTS
 09/03/1999 - 08/31/2000 FY99: \$1,873,000 Total: \$1,873,000
Prin. Invest.: T R MCDERMOTT
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 8824 **MONTANA STATE UNIVERSITY** **6433**
 MOLECULAR AND GEOCHEMICAL ANALYSIS OF HOT SPRING CYANOBAC-
 TERIAL & CHLOROFLEXUS MATS AS STROMATOLITE
 09/22/1999 - 10/31/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: D M WARD *Prin. Invest.:* NONE
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 8 1399 **MONTANA STATE UNIVERSITY** **6434**
 LARGE SCALE ORGANIZATION OF ACTIVE REGION MAGNETIC FIELDS
 08/11/1997 - 08/10/2000 FY99: \$64,280 Total: \$184,330
Prin. Invest.: R C CANFIELD
Tech. Officer: MSFC/M J HAGYARD, MSFC/G A GARY
CASE Category: 11 - ASTRONOMY

NAG 9 1082 **MONTANA STATE UNIVERSITY** **6435**
 RAPID BACTERIAL TESTING FOR SPACECRAFT WATER
 03/03/1999 - 03/31/2002 FY99: \$146,795 Total: \$146,795
Prin. Invest.: B H PYLE
Tech. Officer: JPL/D JAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 1073 **MONTANA STATE UNIVERSITY** **6436**
 COMPARATIVE STUDIES OF MICROBIAL MATS: COMMUNITY COMPOSI-
 TION, PHYSIOLOGICAL & ORGANIC GEOCHEMICAL P
 12/08/1998 - 12/31/1999 FY99: \$40,000 Total: \$40,000
Prin. Invest.: D M WARD
Tech. Officer: ARC/D J DES MARAIS, ARC/B BEBOUT
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NCC 2 1143 **MONTANA STATE UNIVERSITY** **6437**
 BACTERIAL PHYSIOLOGY & VIRULENCE ON EARTH & IN MICROGRAVITY
 09/19/1999 - 08/31/2000 FY99: \$124,001 Total: \$124,001
Prin. Invest.: B H PYLE
Tech. Officer: ARC/M F VASQUES, ARC/P D SAVAGE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5277 **MONTANA STATE UNIVERSITY** **6438**
 MICROBIOLOGICAL SENSING SYSTEM FOR A EUROPA PROBE APPLICA-
 TION
 07/21/1998 - 09/30/1999 FY99: \$9,500 Total: \$10,000
Prin. Invest.: B H PYLE, G MCFETERS
Tech. Officer: ARC/M T FLYNN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 5 240 **MONTANA STATE UNIVERSITY** **6439**
 MONTANA EPSCOR PROGRAM
 09/12/1997 - 02/28/2001 FY99: \$400,000 Total: \$1,400,000
Prin. Invest.: W HASCOCK
Tech. Officer: GSFC/J DASCH
CASE Category: 11 - ASTRONOMY

NCC 5 410 **MONTANA STATE UNIVERSITY** **6440**
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/18/1999 - 05/31/2000 FY99: \$225,000 Total: \$225,000
Prin. Invest.: W HISCOCK
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40041 **MONTANA STATE UNIVERSITY** **6441**
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 06/03/1991 - 02/29/2000 FY99: \$0 Total: \$1,004,500
Prin. Invest.: W A HISCOCK
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 2 52202 **MONTANA STATE UNIVERSITY** **6442**
 THE EFFECTS OF SURFACE HEATING ON BOUNDARY LAYER STABILITY IN
 A 2-D SUPERSONIC WIND-TUNNEL
 09/21/1995 - 07/31/1998 FY99: \$0 Total: \$73,719
Prin. Invest.: A DEMETRIADES, T P BROGAN
Tech. Officer: ARC/J A LAUB, ARC/L S KING
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 40036 MONTANA STATE UNIVERSITY 6443
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 01/31/1997 - 02/29/2000 FY99: \$475,000 Total: \$936,250
Prin. Invest.: W A HISCOCK
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50235 MONTANA STATE UNIVERSITY 6444
 THE ADAPTIVE PHYSIOLOGY OF MICROBIAL LIFE IN PERMA NENT ANT-
 ARCTIC LAKE ICE (STUDENT: NINABAUM)
 06/04/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J PRISCU
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 4 128 SALISH KOOTENAI COLLEGE 6445
 ALL NATIONS ALLIANCE FOR AMERICAN INDIANS IN SCIENCE, ENGINEER-
 ING AND MATHEMATICS
 04/23/1997 - 11/30/1999 FY99: \$151,064 Total: \$800,000
Prin. Invest.: J GOBERT
Tech. Officer: DFRCE L DUKE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3469 UNIVERSITY OF MONTANA 6446
 ASSESSMENT OF CLIMATIC AND ANTHROPOGENIC IMPACTS O CYCLE
 CONSTRAINED BY ATMOSPHERIC MEASUREMENTS AND
 11/02/1996 - 10/31/1999 FY99: \$22,127 Total: \$161,132
Prin. Invest.: S RUNNING
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3852 UNIVERSITY OF MONTANA 6447
 MULTIPLE SCALE ANALYSIS OF FOREST BIOGEOCHEMISTRY: UATION AND
 IMPLEMENTATION OF RHESYS
 12/04/1996 - 02/28/1998 FY99: -\$6,600 Total: \$185,797
Prin. Invest.: D W RUNNING
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4923 UNIVERSITY OF MONTANA 6448
 ASSIMILATION OF SAR DERIVED PARAMETER MAPS INTO BI OVER BOREAS
 STUDY AREA
 06/23/1997 - 05/31/2000 FY99: \$38,842 Total: \$163,573
Prin. Invest.: S W RUNNING
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6575 UNIVERSITY OF MONTANA 6449
 VEMAP PHASE II
 11/17/1997 - 10/31/1999 FY99: \$0 Total: \$169,800
Prin. Invest.: D W RUNNING
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6719 UNIVERSITY OF MONTANA 6450
 RADAR BASED MEASURE OF INTERANNUAL VEGETATION PHEN OLOGY
 FOR MONITORING GLOBAL CHANGE RESPONSES OF
 12/10/1997 - 08/31/2000 FY99: \$23,812 Total: \$157,855
Prin. Invest.: S RUNNING
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8599 UNIVERSITY OF MONTANA 6451
 THE IMPACT OF VEGETATION CHANGES IN THE SAHEL ON REGIONAL
 SCALE HYDROLOGY
 06/21/1999 - 06/30/2000 FY99: \$45,000 Total: \$45,000
Prin. Invest.: S W RUNNING
Tech. Officer: GSFC/E G ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 1112 UNIVERSITY OF MONTANA 6452
 INSTITUTE FOR THE STUDY OF BIOMAKERS IN ASTROMATERIALS
 05/11/1999 - 05/13/2000 FY99: \$12,000 Total: \$12,000
Prin. Invest.: N C HINMAN
Tech. Officer: JSC/E K GIBSON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 5 31368 UNIVERSITY OF MONTANA 6453
 EOS MODIS INVESTIGATION FROM DR. STEVE RUNNING
 01/07/1992 - 12/14/2001 FY99: \$520,000 Total: \$3,444,500
Prin. Invest.: S W RUNNING
Tech. Officer: GSFC/H OSEROFF
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 382 UNIVERSITY OF MONTANA 6454
 INTERNATIONAL EOS NATURAL RESOURCE TRAINING CENTER
 02/19/1999 - 02/29/2000 FY99: \$3,350,000 Total: \$3,350,000
Prin. Invest.: S W RUNNING
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30020 UNIVERSITY OF MONTANA 6455
 DEVELOPING A GLOBAL PHENOLOGY MONITOR: A METHOD FO
 RESPONSES TO CLIMATE CHANGE
 10/14/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: S RUNNING, NONE
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50225 UNIVERSITY OF MONTANA 6456
 MODELING NOVEL FT-IR SPECTROSCOPIC MEASUREMENTS OF OXYGE-
 NATEDHYDROCARBON LEVELS FROM BIO
 09/29/1998 - 08/31/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R J FIELD, MASON
Tech. Officer: HQ/A NURRIDIN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NEBRASKA

NAG 2 1003 CREIGHTON UNIVERSITY 6457
 EFFECTS OF WEIGHTLESSNESS ON VESTIBULAR DEVELOPMEN T IN
 QUAIL
 08/23/1995 - 09/30/1998 FY99: \$0 Total: \$183,031
Prin. Invest.: B FRITZSCH, L L BRUCE
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1353 CREIGHTON UNIVERSITY 6458
 EFFECTS OF GRAVITY ON VESTIBULAR DEVELOPMENT IN MI CE
 07/22/1999 - 01/31/2000 FY99: \$96,464 Total: \$96,464
Prin. Invest.: B FRITZSCH
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 1 1447 UNIVERSITY OF NEBRASKA - LINCOLN 6459
 THEORETICAL EVALUATION OF THE RADIATION HAZARDS FROM COSMIC
 RAYS WITHIN SPACE VEHICLES
 08/26/1992 - 12/31/1998 FY99: -\$1 Total: \$70,000
Prin. Invest.: R KATZ
Tech. Officer: LARC/F A CUCINOTTA, LARC/E J CONWAY
CASE Category: 13 - PHYSICS

NAG 3 1802 UNIVERSITY OF NEBRASKA - LINCOLN 6460
 ELECTROCHROMICS AND OTHER MATERIALS FOR SPACE POWER SYSTEMS
 01/25/1996 - 11/30/1997 FY99: \$0 Total: \$82,500
Prin. Invest.: J A WOOLAM
Tech. Officer: GRC/D A JAWORSKE
CASE Category: 13 - PHYSICS

NAG 3 2086 UNIVERSITY OF NEBRASKA - LINCOLN 6461
 DEGRADATION OF MATERIALS
 11/18/1997 - 10/31/1998 FY99: \$0 Total: \$41,250
Prin. Invest.: J A WOOLAM
Tech. Officer: GRC/D A JAWORSKE
CASE Category: 13 - PHYSICS

NAG 3 2219 UNIVERSITY OF NEBRASKA - LINCOLN 6462
 ATOMIC OXYGEN ULTRAVIOLET, AND THERMAL CYCLING EFFECTS ON
 SPACE MATERIALS
 12/28/1998 - 11/19/1999 FY99: \$45,000 Total: \$45,000
Prin. Invest.: J A WOOLAM
Tech. Officer: GRC/D A JAWORSKE
CASE Category: 13 - PHYSICS

NAG 5 2628 UNIVERSITY OF NEBRASKA - LINCOLN 6463
 LABORATORY EQUIPMENT FOR THE SOUTHERN STUDY AREAS
 06/15/1994 - 12/14/1998 FY99: \$0 Total: \$74,631
Prin. Invest.: E WALTER-SHEA
Tech. Officer: GSFC/F HALL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3442 UNIVERSITY OF NEBRASKA - LINCOLN 6464
 CHARACTERIZATION OF LANDSAT-7 GEOMETRY AND RADIOMETRY FOR
 LAND COVER ANALYSES
 10/07/1996 - 10/31/1999 FY99: \$22,432 Total: \$70,861
Prin. Invest.: J W MERCHANT
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4217 UNIVERSITY OF NEBRASKA - LINCOLN 6465
 CONSORTIUM FOR THE APPLICATION OF SPACE DATA TO EDUCATION
 03/15/1997 - 12/31/1999 FY99: \$499,859 Total: \$1,449,859
Prin. Invest.: D RUNDQUIST
Tech. Officer: GSFC/D L KALE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 5024 UNIVERSITY OF NEBRASKA - LINCOLN 6466
 COORDINATION OF SURFACE GLACIOLOGICAL INVESTIGATIONS & FIELD
 OPS: NASA OVERSNOWEXP, GREENLAND 94
 05/25/1994 - 11/30/1999 FY99: \$576,971 Total: \$2,764,641
Prin. Invest.: K C KUIVINAN, NONE
Tech. Officer: GSFC/W B KRABILL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6010 UNIVERSITY OF NEBRASKA - LINCOLN 6467
 INTERACTION OF RADIATION WITH PLANETARY GASES
 07/28/1997 - 11/30/1998 FY99: \$0 Total: \$30,000
Prin. Invest.: D SAMSON
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6025 UNIVERSITY OF NEBRASKA - LINCOLN 6468
 "COMPRESSION FOR REMOTE SENSING APPLICATIONS"
 09/08/1997 - 09/14/1998 FY99: -\$6,156 Total: \$48,844
Prin. Invest.: K SAYWOOD
Tech. Officer: GSFC/P YEH
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6506 UNIVERSITY OF NEBRASKA - LINCOLN 6469
 MRK 42 AND MRK 957: TWO EXTREME NARROW-LINE STRONG FE II EMIT-
 TING QUASARS - ASCA PROPOSAL A05
 11/17/1997 - 10/31/1999 FY99: \$0 Total: \$17,800
Prin. Invest.: M GASKELL
Prin. Invest.: NONE
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6669 UNIVERSITY OF NEBRASKA - LINCOLN 6470
 AN INITIATIVE TO CREATE AN ENVIRONMENTAL MONITORING LABORATORY
 AT THE UNIVERSITY OF NEBRASKA-LINCOLN
 12/10/1997 - 12/14/1999 FY99: \$0 Total: \$357,000
Prin. Invest.: D RUNDQUIST
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6990 UNIVERSITY OF NEBRASKA - LINCOLN 6471
 CHARACTERIZATION AND IMPROVEMENT OF EOS LAND PRODUCTS
 USING MEASUREMENTS AT AMERIFLUX GRASSLAND AND
 02/25/1998 - 02/28/2001 FY99: \$115,520 Total: \$300,520
Prin. Invest.: D WALTER-SHEA, NONE
Tech. Officer: GSFC/D C WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7676 UNIVERSITY OF NEBRASKA - LINCOLN 6472
 "COMPRESSION FOR REMOTE SENSING APPLICATIONS", CONTROL NO.
 5-3427.
 09/17/1998 - 01/31/2000 FY99: \$0 Total: \$60,000
Prin. Invest.: K SAYOOD
Tech. Officer: GSFC/P YEH
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 8677 UNIVERSITY OF NEBRASKA - LINCOLN 6473
 "COMPRESSION FOR LAND USE DATA", GSFC CONTROL NO. 5-3491.
 FUNDS FOR UNSOLICITED PROPOSAL W/UNIV NE
 07/09/1999 - 09/30/2000 FY99: \$50,131 Total: \$50,131
Prin. Invest.: K SAYOOD
Tech. Officer: GSFC/P YEH
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 1137 UNIVERSITY OF NEBRASKA - LINCOLN 6474
 A PROTOTYPE MARS SURFACE MOBILITY VEHICLE
 08/04/1999 - 08/31/2000 FY99: \$5,000 Total: \$5,000
Prin. Invest.: S FARRITOR
Tech. Officer: JSC/J JOCHIM
CASE Category: 49 - ENGINEERING, OTHER

NASA'S UNIVERSITY PROGRAM

NEVADA

NAGW 3940 UNIVERSITY OF NEBRASKA - LINCOLN 6475
 NAGW-3940/B UNIV. NEBRASKA-LINCOLN "REG. & GLOBAL LAND COVER
 CHAR. VIA SATELLITE." 36-MO MULTI YR
 04/19/1994 - 09/30/1997 FY99: -\$206 Total: \$399,793
 Prin. Invest.: J W MERCHANT
 Tech. Officer: HQ/A J TUJAHOV, HQ/D M BUTLER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 5304 UNIVERSITY OF NEBRASKA - LINCOLN 6476
 TRANSPORT IN QUANTUM STRUCTURES: QUASI TWO DIMENSIONAL
 DEVICES
 01/11/1999 - 01/31/2000 FY99: \$63,415 Total: \$63,415
 Prin. Invest.: S BANDYOPADHYAY
 Tech. Officer: ARC/M MEYAPPAN
 CASE Category: 13 - PHYSICS

NCC 5 430 UNIVERSITY OF NEBRASKA - LINCOLN 6477
 "AMERICA'S FARM" A PROTOTYPE FOR OTHER NATIONAL CYBER-EDUCA-
 TIONAL SITES IN RESPONSE TO NASA COOPERA
 09/20/1999 - 09/30/2000 FY99: \$170,000 Total: \$170,000
 Prin. Invest.: D C RUNDQUIST
 Tech. Officer: GSFC/N LAL
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC13 98003 UNIVERSITY OF NEBRASKA - LINCOLN 6478
 AN INITIATIVE TO CREATE AN AFFILIATED RESEARCH CENTER PROGRAM
 08/17/1998 - 08/16/2001 FY99: \$149,607 Total: \$199,607
 Prin. Invest.: RUNDQUIST
 Tech. Officer: SSC/H CARR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30175 UNIVERSITY OF NEBRASKA - LINCOLN 6479
 INTERANNUAL VARIABILITY IN SNOW MELT & ASSOCIATED ATMOSPHERIC
 CONDITIONS OVER THEMARINE CRYOSPHERE
 01/13/1999 - 12/31/1999 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: M ANDERSON
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50098 UNIVERSITY OF NEBRASKA - LINCOLN 6480
 LARGE SCALE DISTRIBUTED SYSTEMS FOR COMPUTER VISIO
 09/06/1997 - 12/31/1998 FY99: \$0 Total: \$22,000
 Prin. Invest.: SAMAL
 Tech. Officer: HQ/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1274 UNIVERSITY OF NEBRASKA AT KEARNEY 6481
 JOVE RESEARCH STUDY
 01/28/1997 - 08/31/1999 FY99: \$0 Total: \$83,116
 Prin. Invest.: M GLASSER, D
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 169 UNIVERSITY OF NEBRASKA-OMAHA 6482
 THE NEBRASKA INITIATIVE FOR AEROSPACE RESEARCH AND DEVELOP-
 MENT
 12/05/1996 - 11/14/1999 FY99: \$500,000 Total: \$1,500,000
 Prin. Invest.: B D BOWEN, NONE
 Tech. Officer: HQ/J DASCH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 401 UNIVERSITY OF NEBRASKA-OMAHA 6483
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/13/1999 - 05/14/2000 FY99: \$225,000 Total: \$225,000
 Prin. Invest.: B BROWN
 Tech. Officer: HQ/D DETROYE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40051 UNIVERSITY OF NEBRASKA-OMAHA 6484
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA M
 07/26/1991 - 01/31/1998 FY99: -\$162 Total: \$1,004,538
 Prin. Invest.: B B BOWEN
 Tech. Officer: HQ/L KEFFER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40037 UNIVERSITY OF NEBRASKA-OMAHA 6485
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 02/13/1997 - 02/28/2000 FY99: \$271,250 Total: \$762,500
 Prin. Invest.: B D BOWEN
 Tech. Officer: GSFC/L KEFFER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NEVADA

NAG 1 1845 UNIV. OF NEVADA - DESERT RES. INST. 6486
 CLOUD CONDENSATION NUCLEI IN FIRE III MY 1/3
 06/04/1996 - 06/03/2000 FY99: \$0 Total: \$179,020
 Prin. Invest.: J G HUDSON
 Tech. Officer: LARC/V E DELNORE, LARC/J L RAPER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2046 UNIV. OF NEVADA - DESERT RES. INST. 6487
 MICROPHYSICS AND RADIATIVE PROPERTIES OF CIRRUS: INSTRUMEN-
 TATION AND ANALYSIS/PREVIOUS # NAG-1-1707
 04/01/1998 - 05/03/2001 FY99: \$45,000 Total: \$121,000
 Prin. Invest.: J HALLETT
 Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1104 UNIV. OF NEVADA - DESERT RES. INST. 6488
 ANALYTICAL TOOLS FOR CLOUDSCOPE ICE MEASUREMENT
 01/21/1997 - 12/31/1998 FY99: \$0 Total: \$57,778
 Prin. Invest.: W P ARNOTT, J HALLETT
 Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3987 UNIV. OF NEVADA - DESERT RES. INST. 6489
 ORBITAL RADAR STUDIES OF EOLIAN PROCESSES IN THE MANTARCTICA
 03/24/1997 - 03/31/1999 FY99: \$0 Total: \$63,819
 Prin. Invest.: N LANCASTER
 Tech. Officer: GSFC/R H THOMAS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7870 UNIV. OF NEVADA - DESERT RES. INST. 6490
 INTEGRATING MODELING AND REMOTE SENSING FOR MONITO RING
 POTENTIAL RESPONSES TOCLIMATE CHANGE
 01/20/1999 - 12/31/1999 FY99: \$25,142 Total: \$25,142
 Prin. Invest.: G L DANA
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7973 **UNIV. OF NEVADA - DESERT RES. INST.** **6491**
 IN SITU MICROPHYSICAL OBSERVATIONS IN SUPPORT OF THE TRMM/
 KWAJEX FIELD CAMPAIGN
 01/03/1999 - 12/31/1999 FY99: \$165,701 Total: \$165,701
Prin. Invest.: J HALALETT
Tech. Officer: GSFC/OW THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 30286 **UNIV. OF NEVADA - DESERT RES. INST.** **6492**
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/10/1994 - 08/31/1998 FY99: -\$756 Total: \$65,997
Prin. Invest.: R WHARTON, JR
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40038 **UNIV. OF NEVADA - DESERT RES. INST.** **6493**
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 01/24/1997 - 02/28/2000 FY99: \$212,500 Total: \$595,000
Prin. Invest.: J V TARANIK
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3994 **UNIVERSITY OF NEVADA - LAS VEGAS** **6494**
 EFFICIENT TRANSMISSION AND MANIPULATION OF SCIENTI
 03/06/1997 - 02/29/2000 FY99: \$86,642 Total: \$261,642
Prin. Invest.: D LATIFI
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 6727 **UNIVERSITY OF NEVADA - LAS VEGAS** **6495**
 LABORATORY STUDIES OF THERMAL ENERGY CHARGE TRANSFER OF
 CARBON, IRON, SULPHUR, AND NITROGEN IONS IN
 12/11/1997 - 12/31/1999 FY99: \$100,000 Total: \$116,000
Prin. Invest.: V H KWONG
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAS 5 31231 **UNIVERSITY OF NEVADA - LAS VEGAS** **6496**
 STIS CO-INVESTIGATOR SUPPORT
 08/30/1991 - 09/30/2001 FY99: \$185,000 Total: \$710,301
Prin. Invest.: D WEISTROP
Tech. Officer: GSFC/D VITAGLIANO
CASE Category: 11 - ASTRONOMY

NAG 5 4471 **UNIVERSITY OF NEVADA - RENO** **6497**
 MARTIAN PALEOLAKE SEDIMENTS AND TERRESTRIAL ANALOG COV-
 ERED LAKES
 06/17/1997 - 12/31/1999 FY99: \$18,166 Total: \$215,636
Prin. Invest.: D A WHARTON, JR.
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 6664 **UNIVERSITY OF NEVADA - RENO** **6498**
 LANDSAT PATHFINDER GLOBAL LAND COVER TEST SITES PROJECT
 12/10/1997 - 08/31/1998 FY99: -\$288 Total: \$49,712
Prin. Invest.: K MCGWIRE
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6881 **UNIVERSITY OF NEVADA - RENO** **6499**
 NUMERICAL GEOMECHANICS STUDIES OF PLANETARY FAULTING
 02/27/1998 - 09/30/1999 FY99: \$55,700 Total: \$111,387
Prin. Invest.: R SCHULTZ
Tech. Officer: GSFC/P ROGERS
CASE Category: 11 - ASTRONOMY

NAG 5 8267 **UNIVERSITY OF NEVADA - RENO** **6500**
 GEOMETRY AND MECHANICS OF FAULTING ON MARS
 02/24/1999 - 06/30/2000 FY99: \$94,000 Total: \$94,000
Prin. Invest.: R SCHULTZ
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAGW 4151 **UNIVERSITY OF NEVADA - RENO** **6501**
 STUDIES OF PLANETARY FAULTING
 09/24/1994 - 09/30/1998 FY99: -\$133 Total: \$111,250
Prin. Invest.: R A SCHULTZ
Tech. Officer: HQ/R WILLIAMS
CASE Category: 32 - GEOLOGICAL SCIENCE

NCC 5 397 **UNIVERSITY OF NEVADA SYSTEM ADMN.** **6502**
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/24/1999 - 06/30/2000 FY99: \$225,000 Total: \$225,000
Prin. Invest.: J TARANKI
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NEW HAMPSHIRE

NAG 8 1209 **DANIEL WEBSTER COLLEGE** **6503**
 JOVE
 09/25/1995 - 08/31/1998 FY99: \$0 Total: \$40,742
Prin. Invest.: D LOPEZ
Tech. Officer: MSFC/D SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 663 **DARTMOUTH COLLEGE** **6504**
 SUBORBITAL PROGRAM IN MAGNETOSPHERIC & IONOSPHERIC PHYS-
 ICS
 03/28/1990 - 01/31/1999 FY99: \$0 Total: \$418,493
Prin. Invest.: J W LABELLE
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 1098 **DARTMOUTH COLLEGE** **6505**
 THEORETICAL STUDY GLOBAL GEOSPACE SYSTEM
 11/01/1988 - 03/31/2000 FY99: \$0 Total: \$1,714,427
Prin. Invest.: M K HUDSON
Tech. Officer: GSFC/S A CURTIS, GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 2252 **DARTMOUTH COLLEGE** **6506**
 MESOSCALE PROCESSES AT MAGNETOSPHERIC BOUNDARIES AND
 THEIR COUPLING TO THE IONOSPHERE
 05/12/1993 - 06/30/1999 FY99: \$0 Total: \$1,501,000
Prin. Invest.: W LOTKO
Tech. Officer: GSFC/T J BIRMINGHAM, GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 3212 DARTMOUTH COLLEGE 6507
 A PRECISE POSITION FOR RU0042+32
 04/18/1996 - 10/31/1999 FY99: \$0 Total: \$1,993
Prin. Invest.: J THORSTENSEN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 3498 DARTMOUTH COLLEGE 6508
 *RIVER FLOODING AND GLOBAL ENVIRONMENTAL CHANGE: A
 12/02/1996 - 02/14/2000 FY99: \$284,667 Total: \$824,151
Prin. Invest.: R BRACKENRIDGE
Tech. Officer: GSFC/M BALTUCK
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4094 DARTMOUTH COLLEGE 6509
 PRIMORDIAL SOURCES OF GRAVITATIONAL RADIATION
 03/14/1997 - 12/31/1997 FY99: -\$2,024 Total: \$32,976
Prin. Invest.: D GLEISER
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4178 DARTMOUTH COLLEGE 6510
 GLOBAL FLOOD MONITORING AND ANALYSIS
 03/19/1997 - 03/30/2000 FY99: \$44,954 Total: \$154,792
Prin. Invest.: G BRAKENRIDGE
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4529 DARTMOUTH COLLEGE 6511
 DISPERSIVE ALFVEN DYNAMICS OF THE MAGNETOSPHERE-IO
 05/09/1997 - 08/31/2000 FY99: \$157,750 Total: \$251,535
Prin. Invest.: D LOTKO
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4663 DARTMOUTH COLLEGE 6512
 DATA ASSIMILATIVE ANALYSIS OF THE GGS DATA SET USI
 06/05/1997 - 05/31/1999 FY99: \$0 Total: \$71,500
Prin. Invest.: D G LYON
Tech. Officer: GSFC/D EVANS
CASE Category: 13 - PHYSICS

NAG 5 4943 DARTMOUTH COLLEGE 6513
 INVESTIGATION OF EQUATORIAL SPREAD F ROCKET DATA
 06/23/1997 - 05/31/1999 FY99: \$0 Total: \$19,219
Prin. Invest.: D W LABELLE
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 5238 DARTMOUTH COLLEGE 6514
 SOUNDING OF THE ION ENERGIZATION REGION: RESOLVING AMBIGUITIES (SIERRA)
 05/11/1999 - 05/10/2002 FY99: \$59,955 Total: \$59,955
Prin. Invest.: J W LABELLE
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5239 DARTMOUTH COLLEGE 6515
 FIRST YEAR FUNDING FOR *ROCKET AURORAL CORRELATOR EXPERIMENT (RACE) PI DR. JAMES LABELLE
 05/19/1999 - 05/18/2002 FY99: \$115,886 Total: \$115,886
Prin. Invest.: J W LABELLE
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6268 DARTMOUTH COLLEGE 6516
 AUTOMATED ANALYSIS OF REMOTELY-SENSED 2D MAGNETOPA
 08/21/1997 - 07/31/2000 FY99: \$49,404 Total: \$128,879
Prin. Invest.: D O SONNERUP
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6427 DARTMOUTH COLLEGE 6517
 MAGNETIC STORM EFFECTS ON PARTICLE ENERGIZATION IN THE MAGNETOSPHERE
 10/07/1997 - 09/30/1999 FY99: \$0 Total: \$46,000
Prin. Invest.: M HUDSON
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6439 DARTMOUTH COLLEGE 6518
 DETAILED QUANTITATIVE COMPARISON BETWEEN GLOBAL MH D SIMULATION RESULTS AND MULTIPOINT SPACECRAFT OB
 10/31/1997 - 08/31/1999 FY99: \$0 Total: \$30,000
Prin. Invest.: J LYON
Tech. Officer: GSFC/D BOHLIN
CASE Category: 11 - ASTRONOMY

NAG 5 6613 DARTMOUTH COLLEGE 6519
 PRIMORDIAL SOURCES OF GRAVITATIONAL RADIATION
 02/12/1998 - 12/31/1998 FY99: \$0 Total: \$21,000
Prin. Invest.: M GLEISER
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 7185 DARTMOUTH COLLEGE 6520
 APPROXIMATELY TWO-DIMENSIONAL, COHERENT STRUCTURES IN SPACE PLASMAS: THE INVERSE PROBLEM
 03/25/1998 - 03/31/2001 FY99: \$72,501 Total: \$142,011
Prin. Invest.: B U SONNERUP
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 7442 DARTMOUTH COLLEGE 6521
 A THEORETICAL STUDY OF THE GLOBAL GEOSPACE SYSTEM
 06/02/1998 - 09/30/2000 FY99: \$130,000 Total: \$380,000
Prin. Invest.: M HUDSON
Tech. Officer: GSFC/S CURTIS
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7689 DARTMOUTH COLLEGE 6522
 NONADIABATIC CHANGES IN RADIATION BELT POPULATIONS
 09/14/1998 - 09/30/2001 FY99: \$73,000 Total: \$144,000
Prin. Invest.: M K HUDSON
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 7802 DARTMOUTH COLLEGE 6523
 THE ASSIMILATION OF SATELLITE DATA INTO GLOBAL MHD SIMULATIONS
 (SEC GI PROGRAM) NRA-98-03-SEC-114
 11/09/1998 - 12/31/1999 FY99: \$70,000 Total: \$70,000
 Prin. Invest.: J G LYON
 Tech. Officer: GSFC/M H ACUNA
 CASE Category: 13 - PHYSICS

NAG 5 7803 DARTMOUTH COLLEGE 6524
 MULTIPOINT, MULTI-INSTRUMENT STUDY OF AURORAL ALFVENIC PRO-
 CESSSES (SEC GI PROGRAM) NRA-98-03-S
 11/09/1998 - 03/31/2000 FY99: \$90,320 Total: \$90,320
 Prin. Invest.: W LOTKO
 Tech. Officer: GSFC/M H ACUNA
 CASE Category: 13 - PHYSICS

NAG 5 8441 DARTMOUTH COLLEGE 6525
 RESEARCH: "ULTRA LOW FREQUENCY MAGNETOSPHERIC PHYSI
 CS..." FIRST YEAR OF THREE YEAR FUNDING CYCLE. P
 04/08/1999 - 04/14/2000 FY99: \$310,000 Total: \$310,000
 Prin. Invest.: W LOTKO
 Tech. Officer: GSFC/J M GREBOWSKY
 CASE Category: 13 - PHYSICS

NAG 8 1590 DARTMOUTH COLLEGE 6526
 R/S IN SITU OPTICAL WAVEGUIDES FOR MONITORING AND MODIFYING
 PROTEIN CRYSTAL GROWTH
 01/28/1999 - 09/30/2002 FY99: \$80,999 Total: \$80,999
 Prin. Invest.: U J GIBSON
 Tech. Officer: MSFC/H K HIGGINBOTTAM, MSFC/B GUYNES
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 1088 DARTMOUTH COLLEGE 6527
 LIFE SCIENCES DATA ARCHIVE SCIENTIFIC SUPPORT
 03/15/1999 - 05/01/2000 FY99: \$67,588 Total: \$67,588
 Prin. Invest.: J BUCKEY
 Tech. Officer: JSC/D BELL
 CASE Category: 56 - MEDICL

NAS 9 19572 DARTMOUTH COLLEGE 6528
 NEUROLAB MISSION SUPPORT SERVICES
 09/12/1996 - 12/31/1998 FY99: \$54,056 Total: \$421,156
 Prin. Invest.: J C BUCKEY
 Tech. Officer: JSC/L K NEWKIRK
 CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 95 DARTMOUTH COLLEGE 6529
 STORM-TIME RADIATION BELT DYNAMICS
 07/23/1999 - 07/31/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: M K HUDSON
 Tech. Officer: GSFC/L ZANETTI
 CASE Category: 11 - ASTRONOMY

NGT 5 50059 DARTMOUTH COLLEGE 6530
 A STUDY OF SUBSTORM RELATED PULSATIONS IN THE EART
 07/25/1997 - 06/30/1999 FY99: \$0 Total: \$22,000
 Prin. Invest.: M HUDSON
 Tech. Officer: GSFC/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50093 DARTMOUTH COLLEGE 6531
 SOUNDING ROCKET BASED INVESTIGATIONS OF AURORAL HI GRADUATE
 STUDENT RESEARCHERS PROGRAM
 08/21/1997 - 06/30/2000 FY99: \$0 Total: \$44,000
 Prin. Invest.: LABELLE
 Tech. Officer: HQ/A NURRIDIN
 CASE Category: 11 - ASTRONOMY

NGT 5 50153 DARTMOUTH COLLEGE 6532
 SIMULATION OF THE CAVITY MODE STRUCTURE OF THE INN DIPOLE
 GEOMETRY/JERRY GOLDSTEIN
 09/11/1997 - 09/30/2000 FY99: \$0 Total: \$44,000
 Prin. Invest.: M HUDSON, NONE
 Tech. Officer: HQ/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 384 SAINT ANSELM COLLEGE 6533
 GROUND-BASED TESTING OF A PROTOTYPE HOLOGRAPHIC AT
 MOSPHERIC SCANNER FOR ENVIRONMENTAL REMOTESENSIN
 03/05/1999 - 03/14/2000 FY99: \$19,200 Total: \$19,200
 Prin. Invest.: D GUERRA
 Tech. Officer: GSFC/A J NEGRI
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1761 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6534
 MEASUREMENTS OF ACIDIC GASES AND AEROSOL SPECIES A BOARD THE
 NASA DC-8 AIRCRAFT DURING PEM-TROPICS
 09/29/1995 - 09/30/1998 FY99: \$0 Total: \$357,353
 Prin. Invest.: D W TALBOT, D E DIBB
 Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1101 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6535
 MEASUREMNT OF NITRIC & AEROSOL SPECIES ABOARD THE NASA DC-8
 AIRCRAFT DURING THE SASS OZONE &.....
 01/13/1997 - 12/31/1998 FY99: \$0 Total: \$335,903
 Prin. Invest.: R TALBOT
 Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1479 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6536
 THEORETICAL STUDIES ON THE CHROMOSPHERE, CORONA, AND SOLAR
 WIND
 11/26/1990 - 09/30/1999 FY99: \$0 Total: \$2,546,230
 Prin. Invest.: J V HOLLWEG, M A LEO
 Tech. Officer: GSFC/T J BIRMINGHAM
 CASE Category: 13 - PHYSICS

NAG 5 2289 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6537
 MAGNITUDE AND CONTROL OF TRACT GAS EXCHANGE IN BOR EAL OCE-
 SYSTEMS
 06/14/1993 - 07/14/1999 FY99: \$0 Total: \$494,569
 Prin. Invest.: P M CRILL
 Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2290 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6538
 MODELING CLIMATE-BIOSPHERE INTERACTIONS IN THE BOREAL FOREST
 06/14/1993 - 06/14/1998 FY99: -\$482 Total: \$257,518
Prin. Invest.: R C HARRISS
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2350 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6539
 DETERMINING THE CHARACTERISTICS OF SOLAR MICROFLARES WITH
 BATSE
 08/12/1993 - 02/28/1998 FY99: -\$1,601 Total: \$271,725
Prin. Invest.: J M RYAN
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2420 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6540
 USE OF EGRET HIGH ENERGY CAPABILITY TO INVESTIGATE ENERGETIC
 SOLAR FLARE PROCESSES
 11/06/1993 - 11/14/1998 FY99: \$0 Total: \$77,296
Prin. Invest.: E CHUPP, D L BERTSCH
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2834 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6541
 PARTICIPATION IN THE MISSION OPERATIONS AND DATA ANALYSIS PHASE
 OF THE GGS/WIND MISSION
 12/12/1994 - 06/30/1998 FY99: -\$1,088 Total: \$597,062
Prin. Invest.: R B TORBERT
Tech. Officer: GSFC/K W OGILVIE
CASE Category: 13 - PHYSICS

NAG 5 3157 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6542
 MULTIWAVELENGTH SEARCH FOR CORRELATED TIME VARIATIONS IN THE
 BRIGHTEST EGRET BLAZARS.....
 01/23/1996 - 01/31/1998 FY99: -\$325 Total: \$70,898
Prin. Invest.: W R VESTRAND
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3440 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6543
 ACQUISITION AND ANALYSIS OF LARGE QUANTITIES OF LANDSAT-7 DATA
 FOR MEASURING TROPICAL LAND COVER
 10/07/1996 - 02/28/1998 FY99: \$0 Total: \$217,235
Prin. Invest.: D SKOLE
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3518 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6544
 CHARACTERIZATION OF SOLAR FLARE PROTON SPECTRAL US
 11/25/1996 - 11/14/1998 FY99: -\$1 Total: \$24,981
Prin. Invest.: E L CHUPP
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3527 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6545
 ASSESSING THE EFFECTS OF HISTORICAL LAND USE ON FO RESPONSE
 TO CLIMATE CHANGE AND CO₂: A REMOTE SENS
 11/18/1996 - 11/14/2000 FY99: \$171,352 Total: \$551,690
Prin. Invest.: M MARTIN
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3671 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6546
 CONTINUED STUDIES OF SOUTHERN HEMISPHERE GAMMA-RAY PAR-
 ADIGMS FOR TWO BLAZAR PROTOTYPES
 01/02/1997 - 12/31/1999 FY99: \$0 Total: \$92,995
Prin. Invest.: W VESTRAND
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3747 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6547
 MAXWELL, FARADAY, AND VLASOV: 3 DIRECT MEASUREMENT
 03/10/1997 - 08/31/1999 FY99: \$0 Total: \$60,872
Prin. Invest.: D A LYNCH
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 3807 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6548
 CONTINUED STUDIES OF SOLAR MICROFLARES WITH BATSE
 12/12/1996 - 12/31/1997 FY99: -\$1,151 Total: \$13,849
Prin. Invest.: J M RYAN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3815 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6549
 COORDINATED X-RAY OBSERVATIONS OF THE GAMMA-RAY BL AND PKS
 0208-512
 01/24/1997 - 01/31/1999 FY99: \$0 Total: \$22,900
Prin. Invest.: T W VESTRAND
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3857 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6550
 MAPPING THE AGE OF SECONDARY TROPICAL FORESTS USING ANCILLARY
 DATA
 12/19/1996 - 12/14/1997 FY99: -\$488 Total: \$25,010
Prin. Invest.: D SKOLE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3893 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6551
 PRE-LAUNCH EQUATOR-S EFFORT
 02/11/1997 - 02/14/1998 FY99: -\$31 Total: \$74,969
Prin. Invest.: R B TORBERT
Tech. Officer: GSFC/M HESSE
CASE Category: 13 - PHYSICS

NAG 5 3978 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6552
 BOREAL FOREST WATCH: A BOREAS OUTREACH PROGRAM
 03/03/1997 - 01/31/1999 FY99: -\$370 Total: \$61,388
Prin. Invest.: B N ROCK
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4177 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6553
 USE OF SAR FOR MONITORING DEFORESTATION AND SECOND TROPICS
 03/19/1997 - 12/31/1997 FY99: -\$214 Total: \$42,847
Prin. Invest.: D SKOLE
Tech. Officer: GSFC/R H THOMAS
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

<p>NAG 5 4407 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6554 PRE-LAUNCH EQUATOR-S EFFORT 05/07/1997 - 05/14/1998 FY99: \$0 Total: \$65,000 <i>Prin. Invest.:</i> R B TORBERT <i>Tech. Officer:</i> GSFC/M HESSE CASE Category: 13 - PHYSICS</p>	<p>NAG 5 4856 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6562 MAGNETIC RECONNECTION IN SOLAR FLARES 07/15/1997 - 05/14/2000 FY99: \$134,500 Total: \$254,000 <i>Prin. Invest.:</i> D G FORBES <i>Tech. Officer:</i> GSFC/W J WAGNER CASE Category: 11 - ASTRONOMY</p>
<p>NAG 5 4408 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6555 PRE-LAUNCH EQUATOR-S EFFORT 05/21/1997 - 05/14/1998 FY99: -\$1 Total: \$75,001 <i>Prin. Invest.:</i> L M KISTLER <i>Tech. Officer:</i> GSFC/M HESSE CASE Category: 13 - PHYSICS</p>	<p>NAG 5 5007 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6563 AMICIST NEW AWARD 05/12/1993 - 12/31/1998 FY99: \$0 Total: \$587,195 <i>Prin. Invest.:</i> R ARNOLDY <i>Tech. Officer:</i> GSFC/LJ EARLY, GSFC/R H PLESS CASE Category: 13 - PHYSICS</p>
<p>NAG 5 4458 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6556 MAGNETOTAIL-IONOSPHERE COUPLING 05/14/1997 - 06/30/2000 FY99: \$0 Total: \$63,900 <i>Prin. Invest.:</i> D L KAUFMANN <i>Tech. Officer:</i> GSFC/J BOHLIN CASE Category: 13 - PHYSICS</p>	<p>NAG 5 5033 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6564 AURORAL TURBULENCE II FIRST YEAR OF A THREE-YEAR EFFORT IN BASIC 04/12/1995 - 04/30/2000 FY99: \$0 Total: \$514,665 <i>Prin. Invest.:</i> R B TORBERT <i>Tech. Officer:</i> GSFC/R H PLESS CASE Category: 13 - PHYSICS</p>
<p>NAG 5 4616 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6557 HUMAN DIMENSIONS OF DEFORESTATION & REGROWTH IN TH INTEGRATING DATA FROM SATELLITES, DEMOGRAPHIC CENS 05/21/1997 - 05/14/1999 FY99: \$0 Total: \$253,000 <i>Prin. Invest.:</i> D SKOLE <i>Tech. Officer:</i> GSFC/N MAYNARD CASE Category: 39 - ENVIRONMENTALSCI, OTHER</p>	<p>NAG 5 5040 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6565 DUST DETECTOR 07/27/1995 - 06/30/1999 FY99: \$0 Total: \$151,640 <i>Prin. Invest.:</i> K A LYNCH <i>Tech. Officer:</i> GSFC/W B JOHNSON CASE Category: 13 - PHYSICS</p>
<p>NAG 5 4695 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6558 TRANSPORT OF ENERGETIC IONS IN THE RING CURRENT DU S 06/17/1997 - 11/14/1999 FY99: \$33,583 Total: \$121,000 <i>Prin. Invest.:</i> D M KISTLER <i>Tech. Officer:</i> GSFC/D EVANS CASE Category: 13 - PHYSICS</p>	<p>NAG 5 5057 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6566 A CO-INVESTIGATOR PROPOSAL FOR CORNELL UNIVERSITY CAPER 06/25/1996 - 05/31/2000 FY99: \$0 Total: \$409,705 <i>Prin. Invest.:</i> R ARNOLDY <i>Tech. Officer:</i> GSFC/L W GURKIN CASE Category: 13 - PHYSICS</p>
<p>NAG 5 4772 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6559 WAVE ACCELERATION OF AURORAL IONS; AMICIST DATA SE 06/09/1997 - 12/31/1998 FY99: -\$113 Total: \$34,042 <i>Prin. Invest.:</i> D A LYNCH <i>Tech. Officer:</i> GSFC/M M MELLOTT CASE Category: 13 - PHYSICS</p>	<p>NAG 5 5117 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6567 THE TIGRE INSTRUMENT FOR INTERMEDIATE-ENERGY GAMMA-RAY ASTRONOMY FOR 0.3 TO 100MEV 04/18/1997 - 11/30/1999 FY99: \$50,572 Total: \$150,982 <i>Prin. Invest.:</i> J RYAN <i>Tech. Officer:</i> GSFC/H NEEDLEMAN, GSFC/B A MERRITT CASE Category: 13 - PHYSICS</p>
<p>NAG 5 4785 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6560 AN INTEGRATED SYSTEM FOR WATER BUDGET CLOSURE OVER MASS: A TRMM VALIDATION EFFORT 07/03/1997 - 06/30/2000 FY99: \$58,000 Total: \$173,000 <i>Prin. Invest.:</i> C VOROSMARTY <i>Tech. Officer:</i> GSFC/O W THIELE CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p>NAG 5 5124 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6568 ENSTROPY - FILAMENTATION OF AURORAL CURRENTS 03/10/1997 - 01/31/2000 FY99: \$58,300 Total: \$389,920 <i>Prin. Invest.:</i> K LYNCH <i>Tech. Officer:</i> GSFC/B FLOWERS CASE Category: 13 - PHYSICS</p>
<p>NAG 5 4818 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6561 STUDIES OF INTERSTELLAR PICKUP IONS IN THE SOLAR W 06/18/1997 - 09/30/1998 FY99: \$0 Total: \$80,002 <i>Prin. Invest.:</i> D A ISENBERG <i>Tech. Officer:</i> GSFC/J A LING CASE Category: 11 - ASTRONOMY</p>	<p>NAG 5 5147 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6569 MINUTE OF ARC RESOLUTION GAMMA-RAY IMAGING EXPERIMENT (MARGIE) 07/02/1997 - 12/31/1999 FY99: \$50,000 Total: \$100,000 <i>Prin. Invest.:</i> J RYAN <i>Tech. Officer:</i> GSFC/H NEEDLEMAN CASE Category: 13 - PHYSICS</p>

NAG 5 5157 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6570
 *OTOLLITH-CANAL CONVERGENCE IN VESTIBULAR NUCLEI N
 07/21/1997 - 04/30/1999 FY99: \$0 Total: \$43,657
 Prin. Invest.: W T VESTRAND
 Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 5192 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6571
 MONITORING INITIAL STAGES OF FOREST RECOVERY IN T CZECH
 REPUBLIC
 07/18/1997 - 07/31/2000 FY99: \$86,825 Total: \$392,177
 Prin. Invest.: B ROCK
 Tech. Officer: GSFC/D WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5212 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6572
 ULDB COMPTON TELESCOPE MISSION
 09/22/1998 - 12/31/1999 FY99: \$0 Total: \$28,960
 Prin. Invest.: J M RYAN
 Tech. Officer: WFF/B A MERRITT
 CASE Category: 11 - ASTRONOMY

NAG 5 5234 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6573
 DUST DARTS PI DR. KRISTINA LYNCH
 02/12/1999 - 03/28/2002 FY99: \$70,195 Total: \$70,195
 Prin. Invest.: K LYNCH
 Tech. Officer: GSFC/W JOHNSON
 CASE Category: 13 - PHYSICS

NAG 5 5237 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6574
 SOUNDING OF THE ION ENERGIZATION REGION: RESOLVING AMBIGUITIES
 (SIERRA)
 05/11/1999 - 05/10/2002 FY99: \$118,745 Total: \$118,745
 Prin. Invest.: R L ARNOLDY
 Tech. Officer: GSFC/W B JOHNSON
 CASE Category: 13 - PHYSICS

NAG 5 6115 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6575
 THE BIO-ATMOSPHERIC CYCLES OF NITROGEN AND CARBON: POLLUTION
 AND TERRESTRIAL
 07/28/1997 - 07/31/2000 FY99: \$37,689 Total: \$107,770
 Prin. Invest.: B BRASWELL
 Tech. Officer: GSFC/D WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6137 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6576
 TRANSFER FUNDS TO UNIVERSITY OF NEW HAMPSHIRE IN S ENTITLED:
 CHANGES IN BIOGEOCHEMICAL CYCLES
 08/11/1997 - 05/31/2000 FY99: \$1,000,000 Total: \$4,676,073
 Prin. Invest.: B MOORE, III
 Tech. Officer: GSFC/A C JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6289 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6577
 DEVELOPMENT OF A PARTICLE BACKSCATTERING ALGORITHM CONCUR-
 RENT SHIP MEASUREMENTS, AND GLOBAL BIOGEOCH
 09/10/1997 - 08/31/2000 FY99: \$75,000 Total: \$261,774
 Prin. Invest.: J W CAMPBELL
 Tech. Officer: GSFC/J A YODER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6452 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6578
 SATELLITE-BASED SYSTEMS FOR MONITORING BIOGEOCHEMICAL
 FLUXES BETWEEN THE CONTINENTAL LAND MASS AND C
 11/04/1997 - 09/30/2000 FY99: \$60,881 Total: \$402,982
 Prin. Invest.: C VOROSMARTY
 Tech. Officer: GSFC/J A YODER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6453 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6579
 ATMOSPHERIC IMPACTS OF AGRICULTURE: INTEGRATION OF REMOTE
 SENSING AND BIOGEOCHEMICAL MODELS FOR T
 11/18/1997 - 12/31/1999 FY99: \$75,000 Total: \$234,856
 Prin. Invest.: C LI
 Tech. Officer: GSFC/D WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6599 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6580
 CENTERS OF EXCELLENCE IN APPLICATIONS OF REMOTE SENSING TO
 REGIONAL GLOBAL INTEGRATED ENVIRONMENTAL
 12/09/1997 - 11/14/1998 FY99: -\$25 Total: \$396,665
 Prin. Invest.: B MOORE
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6623 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6581
 RADAR-BASED MEASURE OF INTERANNUAL VEGETATION PHENOLOGY
 FOR MONITORING GLOBAL CHANGES RESPONSES OF
 11/19/1997 - 11/30/1999 FY99: \$27,685 Total: \$54,606
 Prin. Invest.: S FROLKING, NONE
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6793 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6582
 LIFE, FROM LOCAL ORIGINS TO GLOBAL PERSISTENCE
 02/18/1998 - 12/31/1998 FY99: \$0 Total: \$105,162
 Prin. Invest.: B MOORE
 Tech. Officer: GSFC/M MEYER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6860 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6583
 WIND/SWE CONTINUED INVESTIGATIONS
 02/17/1998 - 01/14/2000 FY99: \$179,925 Total: \$359,155
 Prin. Invest.: R TORBERT
 Tech. Officer: GSFC/K OGILVIE
 CASE Category: 13 - PHYSICS

NAG 5 6862 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6584
 ESTIMATION OF SUPERNOVA RATES FROM COMPTON OBSERVATIONS
 02/17/1998 - 01/31/1999 FY99: \$0 Total: \$10,000
 Prin. Invest.: D J MORRIS
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 6863 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6585
 EXPLORING THE GAMMA-RAY SKY AT 2.2 MEV
 02/17/1998 - 02/28/1999 FY99: \$0 Total: \$40,000
 Prin. Invest.: M L MCCONNELL
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NEW HAMPSHIRE

NASA'S UNIVERSITY PROGRAM

NAG 5 6864 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6586
 POINTED OBSERVATIONS AND RE-ANALYSIS OF EXISTING COMPTEL DATA
 ON PSRB1509-58; COMPTEL RAPID BUR
 02/17/1998 - 01/31/1999 FY99: \$0 Total: \$15,000
Prin. Invest.: A CONNORS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6925 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6587
 GRANT
 02/04/1998 - 01/31/2000 FY99: \$122,644 Total: \$389,734
Prin. Invest.: L M KISTLER
Tech. Officer: GSFC/M HESSE
CASE Category: 13 - PHYSICS

NAG 5 6935 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6588
 GRANT
 02/04/1998 - 01/31/2000 FY99: \$130,782 Total: \$379,492
Prin. Invest.: R B TORBERT
Tech. Officer: GSFC/M HESSE
CASE Category: 13 - PHYSICS

NAG 5 6992 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6589
 BROAD-BAND MEASUREMENTS OF CEN X-3 WITH XTE AND CGRO XTE
 PROPOSAL
 02/06/1998 - 02/14/2000 FY99: \$0 Total: \$15,000
Prin. Invest.: T VESTRAND
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7052 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6590
 NEW TECHNOLOGY CDZNT DETECTORS FOR HIGH-ENERGY FLARE
 SPECTROSCOPY: THERMOO TEMPERATURE SEMICONDUCT
 03/16/1998 - 06/30/2000 FY99: \$0 Total: \$149,000
Prin. Invest.: D VESTRANK
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7095 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6591
 SCALING PEATLAND CO2 AND CH4 FLUXES FROM CHAMBERS TO THE
 BOREAS NORTH-ERN AND SOUTHERN STUDY AREAS
 05/21/1998 - 04/30/2000 FY99: \$62,427 Total: \$170,812
Prin. Invest.: S FROLKING
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7097 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6592
 STUDIES OF INTERSTELLAR PICKUP IONS IN THE SOLAR WIND
 06/05/1998 - 10/31/1999 FY99: \$75,000 Total: \$150,000
Prin. Invest.: P A ISENBERG, NONE
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 7118 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6593
 ENERGETIC PARTICLE ACCELERATION IN X-RAY BINARIES JOINT X-RAY
 AND GAMMA-RAY O
 04/13/1998 - 04/14/1999 FY99: -\$569 Total: \$6,786
Prin. Invest.: T VESTRAND
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7178 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6594
 COMPTEL ANALYSIS OF THE COSMIC DIFFUSE GAMMA RADIATION
 03/25/1998 - 03/31/1999 FY99: -\$671 Total: \$14,329
Prin. Invest.: J M RYAN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7179 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6595
 CONTINUED STUDIES AND A REPROCESSING OF BATSE SOLAR MICRO-
 FLARE DATA
 03/25/1998 - 03/31/1999 FY99: -\$6,107 Total: \$8,893
Prin. Invest.: J M RYAN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7241 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6596
 XTE PROPOSAL - A COUNTERPART SEARCH FOR A SOURCE OF 2.2 MEV
 GAMMA-RAYS
 04/14/1998 - 04/14/1999 FY99: \$0 Total: \$5,220
Prin. Invest.: M L MCCONNELL
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7294 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6597
 SOLPOL - A SOLAR POLARIMETER FOR HARD X-RAYS AND GAMMA RAYS
 04/15/1998 - 10/14/1999 FY99: \$0 Total: \$118,000
Prin. Invest.: M L MCCONNELL
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7368 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6598
 STUDY OF RING CURRENT DYNAMICS DURING GEOMAGNETIC STORMS
 05/06/1998 - 05/31/2000 FY99: \$0 Total: \$14,000
Prin. Invest.: V K JORDANOVA
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 7601 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6599
 DEVELOPMENT OF SPACE-BASED TECHNIQUES FOR MEASURING
 07/24/1998 - 07/14/2000 FY99: \$0 Total: \$89,532
Prin. Invest.: L D DINGMAN
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7631 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6600
 QUANTIFYING THE ATMOSPHERIC IMPACTS OF PADDY RICE AGRICULTURE
 IN CHINA
 08/10/1998 - 09/30/2001 FY99: \$395,670 Total: \$529,670
Prin. Invest.: C LI
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7745 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6601
 BROAD-BAND GAMMA-RAY SPECTRA OF CYGNUS X-1
 11/16/1998 - 11/30/1999 FY99: \$15,000 Total: \$15,000
Prin. Invest.: M L MCCONNELL
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7792 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6602
 ION ACCELERATION AND TRANSPORT IN IMPULSIVE AND GRADUAL
 SOLAR FLARES
 12/14/1998 - 12/31/1999 FY99: \$52,966 Total: \$52,966
 Prin. Invest.: D A LEE
 Tech. Officer: GSFC/D C LING
 CASE Category: 11 - ASTRONOMY

NAG 5 7798 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6603
 SMALL SCALE STRUCTURE OF AURORAL ELECTRIC CURRENTS - A
 GUEST INVESTIGATOR PROPOSAL TO THE FAST
 12/15/1998 - 12/31/1999 FY99: \$82,640 Total: \$82,640
 Prin. Invest.: D A LYNCH
 Tech. Officer: GSFC/L ZANETTI
 CASE Category: 11 - ASTRONOMY

NAG 5 7804 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6604
 ELECTRIC FIELDS AND RING CURRENT ENERGIZATION (SEGMENT
 PROGRAM)
 11/06/1998 - 12/31/1999 FY99: \$71,813 Total: \$71,813
 Prin. Invest.: V K JORDANOVA
 Tech. Officer: GSFC/M H ACUNA
 CASE Category: 13 - PHYSICS

NAG 5 7829 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6605
 COMPUTEL STUDIES OF GAMMA-RAY BURSTS AT MEV ENERGIES
 11/17/1998 - 11/30/1999 FY99: \$10,000 Total: \$10,000
 Prin. Invest.: M L MCCONNELL
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7891 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6606
 CGRO-COMPTON RAPID BURST RESPONSE
 01/19/1999 - 01/14/2000 FY99: \$4,000 Total: \$4,000
 Prin. Invest.: J R RYAN
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7895 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6607
 SOLAR FLARE NUCLEAR SPECTROSCOPY
 12/02/1998 - 12/14/1999 FY99: \$10,000 Total: \$10,000
 Prin. Invest.: J M RYAN
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 8041 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6608
 INVESTIGATION OF POLAR CAP AND RING CURRENT PRECIPITATION
 01/07/1999 - 01/14/2000 FY99: \$60,695 Total: \$60,695
 Prin. Invest.: R B TOBBERT
 Tech. Officer: GSFC/M H ACUNA
 CASE Category: 13 - PHYSICS

NAG 5 8044 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6609
 AN INVESTIGATION OF THE CHARGE STATE COMPOSITION OF SOLAR &
 SHOCK-ACCELERATED SUPRATHERMAL PA
 01/11/1999 - 01/14/2000 FY99: \$36,081 Total: \$36,081
 Prin. Invest.: A B GALVIN, NONE
 Tech. Officer: GSFC/M H ACUNA
 CASE Category: 13 - PHYSICS

NAG 5 8228 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6610
 "THEORETICAL STUDIES OF THE SOLAR ATMOSPHERE AND SOLAR WIND".
 02/24/1999 - 03/14/2000 FY99: \$364,998 Total: \$364,998
 Prin. Invest.: J V HOLLWEG
 Tech. Officer: GSFC/J M GREBOWSKY
 CASE Category: 13 - PHYSICS

NAG 5 8436 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6611
 TESTING THE PARADIGM FOR X-RAY-SELECTED BL LACERTA E: JOINT
 X-RAY AND GEV/TeV GAMMA-RAY OBSERVATION
 04/02/1999 - 03/31/2000 FY99: \$8,730 Total: \$8,730
 Prin. Invest.: W VESTRAND
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8443 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6612
 A WATER BUDGET CLOSURE SYSTEM TO SUPPORT LBA HYDRO
 METEOROLOGY AND ECOLOGY STUDIES
 04/08/1999 - 04/14/2000 FY99: \$94,852 Total: \$94,852
 Prin. Invest.: C J VOROSMARTY
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8452 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6613
 USE OF SAR FOR MONITORING DEFORESTATION AND SECONDARY
 GROWTH IN THE TROPICS
 04/09/1999 - 02/29/2000 FY99: \$41,542 Total: \$41,542
 Prin. Invest.: W SALAS
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8486 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6614
 SONTRAC - A NEUTRON TRACKING DEVICE FOR SOLAR AND
 ATMOSPHERIC PHYSICS
 04/29/1999 - 04/30/2000 FY99: \$92,705 Total: \$92,705
 Prin. Invest.: J M RYAN
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 8641 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6615
 AN APD READOUT SCHEME FOR A SOLAR NEUTRON TRACKING DEVICE
 07/08/1999 - 06/30/2000 FY99: \$291,275 Total: \$291,275
 Prin. Invest.: M L MCCONNELL
 Tech. Officer: GSFC/G MUCKLOW
 CASE Category: 13 - PHYSICS

NAG 5 8656 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6616
 EDUCATION & PUBLIC OUTREACH PROPOSAL - UNIVERSITY-LEVEL
 RESEARCH PROJECTS FOR HIGH SCHOOL STUDENTS
 08/19/1999 - 08/31/2000 FY99: \$1,000 Total: \$1,000
 Prin. Invest.: M MCCONNELL
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 8683 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6617
 THE CONTRIBUTION OF SATELLITE RADAR ALTIMETRY TO THE DETER-
 MINATION OF RIVER DISCHARGE & LAKE/RESSER
 07/23/1999 - 07/14/2000 FY99: \$49,403 Total: \$49,403
 Prin. Invest.: C J VOROSMARTY
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8733 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6618
 CONVERSION SURFACE TECHNOLOGY FOR LOW ENERGY NEUTRAL ATOM IMAGING.
 09/14/1999 - 08/31/2000 FY99: \$180,982 Total: \$180,982
 Prin. Invest.: J QUINN
 Tech. Officer: GSFC/G MUCKLOW
 CASE Category: 11 - ASTRONOMY

NAG 5 8828 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6619
 "COOPERATION BETWEEN IGBP AND LAB: MEETING THE INTERNATIONAL CHALLENGE"
 09/08/1999 - 09/14/2000 FY99: \$116,500 Total: \$116,500
 Prin. Invest.: B MOORE III
 Tech. Officer: GSFC/D DEERING
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 2669 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6620
 CHANGES IN BIOGEOCHEMICAL CYCLES: EXECUTION PHASES
 09/03/1991 - 06/30/1998 FY99: -\$16,002 Total: \$9,023,206
 Prin. Invest.: B MOORE
 Tech. Officer: HQ/R E MURPHY, HQ/W S WILSON
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4783 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6621
 HIGH SPECTRAL RESOLUTION REMOTE SENSING OF FOLIAR CHEMISTRY AND SPECIES COMPOSITION
 09/22/1995 - 09/30/1998 FY99: -\$201 Total: \$41,650
 Prin. Invest.: M E MARTIN, J D ABER
 Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5074 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6622
 THE DEVELOPMENT OF A SOLAR FLARE HARD X-RAY/GAMMA- RAY POLARIMETER
 05/21/1996 - 05/31/1998 FY99: \$0 Total: \$84,200
 Prin. Invest.: M L MCCONNELL
 Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE
 CASE Category: 11 - ASTRONOMY

NAGW 5146 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6623
 SPECIO ACTIVITY THE EXCITING NEWS FROM SPACE - NEW TECH CDZNT DETECTORS FOR HIGH ENERGY FLARE SPEC
 08/30/1996 - 06/30/1998 FY99: -\$17 Total: \$137,983
 Prin. Invest.: W VESTRAND
 Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE
 CASE Category: 99 - MULTIDISCIPL, OTHER

NAGW 5161 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6624
 ATMOSPHERIC IMPACT OF AGRICULTURE: INTEGRATION OF REMOTE SENSING AND BIOGEOCHEMICAL MODELS
 09/09/1996 - 02/28/1998 FY99: -\$105 Total: \$108,738
 Prin. Invest.: C LI, W J EMERY
 Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 26645 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6625
 DEFINITION PHASE OF THE DETECTOR SUBSYSTEM FOR THE COMPTON
 08/19/1981 - 09/30/1999 FY99: \$0 Total: \$30,141,653
 Prin. Invest.: J RYAN
 Tech. Officer: GSFC/J NORRIS
 CASE Category: 11 - ASTRONOMY

NAS 5 30744 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6626
 ELECTRON DRIFT EXPERIMENT & ACTIVE SPACECRAFT POTENTIAL
 11/22/1989 - 10/17/2000 FY99: \$1,793,864 Total: \$16,048,279
 Prin. Invest.: R TORBERT
 Tech. Officer: GSFC/L CHRISTENSEN
 CASE Category: 13 - PHYSICS

NAS 5 96063 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6627
 MODIS-EOS DEVELOPMENT OF ALGORITHMS
 07/16/1996 - 06/01/2000 FY99: \$220,000 Total: \$693,000
 Prin. Invest.: J CAMPBELL
 Tech. Officer: GSFC/D TOLL, GSFC/B CONBOY
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 184 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6628
 ANALYSIS AND PUBLICATION OF SELECTED NASA/GTE DACOM DATA
 08/12/1993 - 11/30/1997 FY99: -\$697 Total: \$63,413
 Prin. Invest.: R C HARRISS
 Tech. Officer: LARC/G W SACHSE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 298 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6629
 PEM-TROPICS B MY 1/2
 04/30/1998 - 03/31/2000 FY99: \$184,000 Total: \$757,000
 Prin. Invest.: R W TALBOT, J E DIBB
 Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 226 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6630
 TROPICAL BIOCHEMISTRY & NASA LBA ECOLOGY SCIENCE S
 09/10/1997 - 12/31/1999 FY99: \$103,084 Total: \$360,754
 Prin. Invest.: D BARTLETT
 Tech. Officer: GSFC/D WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 304 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6631
 WEB BASED SYSTEM FOR TERRESTRIAL ENVIRONMENTAL RESEARCH
 04/22/1998 - 02/28/2001 FY99: \$1,000,000 Total: \$1,750,000
 Prin. Invest.: B MOORE, NONE
 Tech. Officer: GSFC/M MAIDEN
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 5 338 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6632
 MODELING THE BIOGEOCHEMICAL SYSTEM OF THE TERRESTRIAL AMAZON: ISSUES FOR SUSTAINABILITY
 06/23/1998 - 12/31/1999 FY99: \$248,415 Total: \$472,833
 Prin. Invest.: B MOORE, 111
 Tech. Officer: GSFC/D W DEERING
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 357 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6633
 SOIL BIOGEOCHEMISTRY OF CARBON, NUTRIENTS AND TRACE GAS IN THE AMAZON REGION OF BRAZIL: FIELD AND
 08/03/1998 - 07/31/2001 FY99: \$256,467 Total: \$456,808
 Prin. Invest.: P CRILL
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30014 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6634
 CHEMISTRY AND DEPOSITION OF ATMOSPHERIC NITROGEN I ENVIRON-
 MENT
 10/14/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: R TALBOT
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30083 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6635
 THIRD YEAR FUNDING: "THE EFFECT OF PAST DISTURBAN NITROGEN
 SATURATION IN NORTHEASTERN U. S. FORESTS
 09/10/1997 - 08/31/1998 FY99: -\$116 Total: \$21,884
Prin. Invest.: D ABER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30125 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6636
 SOIL HYDROLOGICAL CONTROLS OVER NITROGEN OXIDE EMISSIONS
 AND NITROGEN CYCLING IN TROPICAL AGRICULTURE
 06/03/1998 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: P CRILL
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40010 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6637
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 01/30/1997 - 02/28/2000 FY99: \$431,250 Total: \$851,897
Prin. Invest.: D S BARTLETT
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50055 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6638
 TO INVESTIGATE FIELD ALIGNED AUROAL CURRENTS WITH FREJA SAT-
 ELLITE
 07/18/1997 - 08/14/1998 FY99: -\$2 Total: \$21,998
Prin. Invest.: C KLETZING
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50096 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6639
 INVESTIGATE MESOSPHERIC DUST AS A SOURCE FOR SUDDE GRADUATE
 STUDENT RESEARCHERS PROGRAM
 08/21/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: D LYNCH
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NEW JERSEY

NAG 5 3088 NEW JERSEY INSTITUTE OF TECHNOLOGY 6640
 THERMAL AND NON-THERMAL ELECTRON POPULATIONS IN SOLAR
 BURSTS DEDUCED FROM HARD X-RAY AND MICROWAVE
 10/05/1995 - 10/14/1997 FY99: \$0 Total: \$55,000
Prin. Invest.: H WANG
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3103 NEW JERSEY INSTITUTE OF TECHNOLOGY 6641
 WHITE DWARF EVOLUTION AND AGE AND EVOLUTION OF THE GALAXY
 10/11/1995 - 10/14/1999 FY99: \$0 Total: \$173,000
Prin. Invest.: M A WOOD
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3536 NEW JERSEY INSTITUTE OF TECHNOLOGY 6642
 THE STUDY OF QUIET SUN ATMOSPHERE AND MAGNETIC FIE SOHO AND
 BBSO OBSERVATIONS
 12/14/1996 - 11/30/1999 FY99: \$0 Total: \$175,893
Prin. Invest.: D WANG
Tech. Officer: GSFC/A POLAND
CASE Category: 11 - ASTRONOMY

NAG 5 3663 NEW JERSEY INSTITUTE OF TECHNOLOGY 6643
 STUDY OF HARD X-RAY AND MICROWAVE PULSATIONS IN SO
 12/11/1996 - 12/14/1998 FY99: -\$1 Total: \$34,999
Prin. Invest.: H WANG
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 4919 NEW JERSEY INSTITUTE OF TECHNOLOGY 6644
 STUDIES OF SOLAR MAGNETIC FIELDS AND SOLAR ACTIVIT
 07/08/1997 - 05/31/2000 FY99: \$573,129 Total: \$1,044,475
Prin. Invest.: D R GOODE
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 5144 NEW JERSEY INSTITUTE OF TECHNOLOGY 6645
 A STUDENT-DESIGNED EXPERIMENT TO ANALYZE PARTICLES COLLECTED
 DURING A NASA BALLOON FLIGHT
 06/17/1997 - 12/17/1999 FY99: \$0 Total: \$34,220
Prin. Invest.:
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 11 - ASTRONOMY

NAG 5 6055 NEW JERSEY INSTITUTE OF TECHNOLOGY 6646
 STUDY OF FILAMENT ERUPTIONS AND CORONAL MASS EJECT SOHO
 OBSERVATIONS
 07/28/1997 - 06/30/1999 FY99: \$0 Total: \$76,000
Prin. Invest.: D WANG, NONE
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6381 NEW JERSEY INSTITUTE OF TECHNOLOGY 6647
 MEASUREMENTS OF THE SOLAR CORONA AND MAGNETIC FIELDS USING
 IMAGING MICROWAVE SPECTROSCOPY
 10/31/1997 - 06/30/2001 FY99: \$141,103 Total: \$233,448
Prin. Invest.: D GARY
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 - PHYSICS

NAG 5 7085 NEW JERSEY INSTITUTE OF TECHNOLOGY 6648
 STATISTICAL STUDIES OF FILAMENT DIAPPEARANCES BY A ANALYZING
 FULL-DISK YOHKOH SXT AND BBSO HX DATA
 03/13/1998 - 04/14/2000 FY99: \$51,975 Total: \$74,059
Prin. Invest.: H WANG
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7349 NEW JERSEY INSTITUTE OF TECHNOLOGY 6649
 SOHO/BBSO COORDINATED STUDY ON H AND UV JETS
 05/06/1998 - 09/30/1999 FY99: \$23,105 Total: \$69,105
 Prin. Invest.: H WANG
 Tech. Officer: GSFC/A POLAND
 CASE Category: 13 - PHYSICS

NAG 5 7350 NEW JERSEY INSTITUTE OF TECHNOLOGY 6650
 STUDY OF FILAMENT ERUPTIONS AND CORONAL MASS EJECTIONS BY
 JOINTBBSO/SOHO OBSERVATIONS
 05/06/1998 - 04/30/1999 FY99: \$0 Total: \$46,000
 Prin. Invest.: H WANG
 Tech. Officer: GSFC/A POLAND
 CASE Category: 13 - PHYSICS

NAG 5 7454 NEW JERSEY INSTITUTE OF TECHNOLOGY 6651
 EARTHSHINE MEASUREMENTS OF GLOBAL ATMOSPHERIC PROPERTIES
 07/23/1998 - 07/31/2001 FY99: \$103,907 Total: \$218,545
 Prin. Invest.: P R GOODE
 Tech. Officer: GSFC/D EVANS
 CASE Category: 11 - ASTRONOMY

NAG 5 7837 NEW JERSEY INSTITUTE OF TECHNOLOGY 6652
 SOHO/BBSO COORDINATED STUDY ON MAGNETIC RECONNECTION IN
 THE QUIET SUN
 12/22/1998 - 12/31/1999 FY99: \$73,676 Total: \$73,676
 Prin. Invest.: H WANG
 Tech. Officer: GSFC/J GURMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8329 NEW JERSEY INSTITUTE OF TECHNOLOGY 6653
 INSTRUMENT UPGRADES AT BBSO TO SUPPORT HESSI OBSERVATIONS
 04/29/1999 - 04/30/2000 FY99: \$70,000 Total: \$70,000
 Prin. Invest.: H WANG
 Tech. Officer: GSFC/W J WANGER
 CASE Category: 11 - ASTRONOMY

NAG 5 8466 NEW JERSEY INSTITUTE OF TECHNOLOGY 6654
 SOFTWARE DEVELOPMENT FOR THE OWENS VALLEY SOLAR ARRAY IN
 SUPPORT OF HESSI
 04/29/1999 - 06/30/2000 FY99: \$73,517 Total: \$73,517
 Prin. Invest.: D E GARY
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 8485 NEW JERSEY INSTITUTE OF TECHNOLOGY 6655
 INTERACTION OF WAVES AND CONVECTION IN THE SUN
 05/04/1999 - 04/30/2000 FY99: \$41,235 Total: \$41,235
 Prin. Invest.: M F WOODARD
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 8 1114 NEW JERSEY INSTITUTE OF TECHNOLOGY 6656
 JOVE
 02/01/1995 - 06/30/1999 FY99: \$19,835 Total: \$166,835
 Prin. Invest.: S BAOHERI, A SOHN, M BIEBER
 Tech. Officer: MSFC/F SIX
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1843 PRINCETON UNIVERSITY 6657
 NEURAL NETWORKS FOR ON-LINE STRUCTURAL DYNAMICS AND CON-
 TROL ANALYSIS
 06/11/1996 - 09/30/1998 FY99: -\$1 Total: \$90,000
 Prin. Invest.: M O PHAN
 Tech. Officer: LARC/P G MAGHAM
 CASE Category: 42 - AERONAUTICAL ENGR

NAG 2 561 PRINCETON UNIVERSITY 6658
 STUDIES IN ROTORCRAFT SYSTEM IDENTIFICATION
 02/03/1989 - 01/31/2000 FY99: \$7,000 Total: \$372,867
 Prin. Invest.: H C CURTISS, R M MCKILLUP
 Tech. Officer: ARC/J A FRANKLIN, ARC/M B TISCHLER
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1029 PRINCETON UNIVERSITY 6659
 UNSTRUCTURED MESH GENERATION FOR COMPLEX CONFIGURATIONS
 03/06/1996 - 02/28/1999 FY99: \$21,127 Total: \$299,926
 Prin. Invest.: T J BAKER, G A JAMESON
 Tech. Officer: ARC/S E CLIFF, ARC/R A KENNELLY
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1327 PRINCETON UNIVERSITY 6660
 DEVELOPMENT OF UNSTRUCTURED METHODS FOR EFFICIENT AERODY-
 NAMIC SIMULATION & DESIGN
 05/21/1999 - 05/15/2000 FY99: \$100,747 Total: \$100,747
 Prin. Invest.: T J BAKER, A J SMITS
 Tech. Officer: ARC/S E CLIFF
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1713 PRINCETON UNIVERSITY 6661
 STUDIES OF FLAME STRUCTURES IN MICROGRAVITY
 03/28/1995 - 02/28/1999 FY99: \$0 Total: \$425,000
 Prin. Invest.: C K LAW
 Tech. Officer: GRC/K SACKSTEDER
 CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1762 PRINCETON UNIVERSITY 6662
 DYNAMICS OF HARD SPHERE COLLOIDAL DISPERSIONS
 06/27/1995 - 12/21/1999 FY99: \$0 Total: \$1,170,000
 Prin. Invest.: P M CHAIKIN
 Tech. Officer: GRC/J S LING
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2164 PRINCETON UNIVERSITY 6663
 FUNDAMENTAL CHARACTERIZATION & KINETIC STUDIES OF EMISSIONS
 SPECIES: FUEL SULFUR ISSUES & SOX/NOX/CO
 05/21/1998 - 03/12/2000 FY99: \$127,853 Total: \$219,700
 Prin. Invest.: F L DRYER, R A YETTER
 Tech. Officer: GRC/C C WEY
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2248 PRINCETON UNIVERSITY 6664
 THE CONTROL AND DYNAMICS OF HARD SPHERE COLLOIDAL DISPER-
 SIONS
 03/30/1999 - 02/23/2004 FY99: \$250,000 Total: \$250,000
 Prin. Invest.: P M CHAIKIN
 Tech. Officer: GRC/B S SINGH
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 616 **PRINCETON UNIVERSITY** **6665**
 INTERSTELLAR MEDIUM ABSORPTION PROFILE SPECTROGRAPH (IMAPS)
 01/01/1983 - 10/31/1999 FY99: \$0 Total: \$10,712,016
Prin. Invest.: E B JENKINS
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 1629 **PRINCETON UNIVERSITY** **6666**
 HST GTO PARTICIPATION
 07/15/1991 - 08/31/2000 FY99: \$0 Total: \$925,196
Prin. Invest.: E J GROTH
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 - ASTRONOMY

NAG 5 2796 **PRINCETON UNIVERSITY** **6667**
 HYDRODYNAMIC STABILITY AND MAGNETIC RECONNECTION IN DISKS
 AND STARS
 11/18/1994 - 01/31/1999 FY99: \$0 Total: \$315,100
Prin. Invest.: J GOODMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3364 **PRINCETON UNIVERSITY** **6668**
 ORIGIN AND EVOLUTION OF DUST IN ELLIPTICAL GALAXIES
 08/28/1996 - 08/31/2000 FY99: \$0 Total: \$151,000
Prin. Invest.: G R KNAPP
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6422 **PRINCETON UNIVERSITY** **6669**
 INDIVIDUAL-BASED MODELS, AND SCALING FROM INDIVIDUAL
 09/29/1997 - 07/31/1998 FY99: \$0 Total: \$110,000
Prin. Invest.: D A LEVIN
Tech. Officer: GSFC/D WICKLAND
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6494 **PRINCETON UNIVERSITY** **6670**
 REMOTE SENSING FOR LAND SURFACE HYDROLOGY: ACCURACY AND
 UNCERTAINTY ANALYSES
 10/27/1997 - 09/30/2000 FY99: \$50,000 Total: \$341,944
Prin. Invest.: E WOOD
Tech. Officer: GSFC/J DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6511 **PRINCETON UNIVERSITY** **6671**
 "ESTIMATION OF FLOOD HAZARDS THROUGH REMOTE SENSING AND
 MODELING"
 11/04/1997 - 10/31/1999 FY99: \$0 Total: \$96,365
Prin. Invest.: E WOOD
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6591 **PRINCETON UNIVERSITY** **6672**
 EVALUATION AND INTERCOMPARISON OF THREE-DIMENSIONAL GLOBAL
 MARINE CARBON CYCLE MODELS
 11/07/1997 - 12/31/1999 FY99: \$56,084 Total: \$114,826
Prin. Invest.: J L SARMIENTO
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6671 **PRINCETON UNIVERSITY** **6673**
 REMOTE SENSING FOR REGIONAL ENVIRONMENTAL IMPACT ASSES-
 SMENT OF LAND CONVERSION FOR BIOMASS PRODUCTION
 12/16/1997 - 10/31/1999 FY99: \$0 Total: \$102,000
Prin. Invest.: E LARSON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6734 **PRINCETON UNIVERSITY** **6674**
 IMAGING THE CELESTIAL EQUATOR AT 12 MICRONS AND 2.5 MICRONS
 AND COMPARISON WITH FIVE COLOR
 12/16/1997 - 12/31/1999 FY99: \$0 Total: \$45,000
Prin. Invest.: G KNAPP
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7016 **PRINCETON UNIVERSITY** **6675**
 ASTROMETRY OF GRAVITATIONAL LENSING WITH SIMBAD
 02/17/1998 - 02/14/2000 FY99: \$46,131 Total: \$92,522
Prin. Invest.: B PACZYNSKI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7030 **PRINCETON UNIVERSITY** **6676**
 INTERSTELLAR STUDIES - ATP
 02/17/1998 - 02/14/2001 FY99: \$101,202 Total: \$198,081
Prin. Invest.: B T DRAINE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7047 **PRINCETON UNIVERSITY** **6677**
 QUASAR ABSORPTION LINES AT LOW AND INTERMEDIATE REDSHIFTS -
 ATP
 02/19/1998 - 02/14/2000 FY99: \$52,000 Total: \$102,000
Prin. Invest.: J N BACHALL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7066 **PRINCETON UNIVERSITY** **6678**
 DYNAMICS OF THE GALAXY, GLOBULAR CLUSTERS, AND THE LOCAL
 GROUP - ATP
 02/26/1998 - 02/29/2000 FY99: \$78,000 Total: \$156,000
Prin. Invest.: S D TREMAINE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7154 **PRINCETON UNIVERSITY** **6679**
 FORMATION AND EVOLUTION OF GROUPS AND FILAMENTS - ATP
 03/16/1998 - 03/14/2000 FY99: \$118,000 Total: \$233,828
Prin. Invest.: D N SPERGEL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7297 **PRINCETON UNIVERSITY** **6680**
 A TERRESTRIAL WATER AND ENERGY BUDGET FOR THE BOREAL STUDY
 REGION SCALE USING FIELD MEASUREMENTS, R
 04/21/1998 - 04/30/2000 FY99: \$35,701 Total: \$85,652
Prin. Invest.: E F WOOD
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7310	PRINCETON UNIVERSITY	6681	
LONG-TERM ORBITAL EVOLUTION IN PLANETARY SYSTEMS AND PROTO-PLANETARY DISKS			
04/22/1998 - 04/30/2001	FY99: \$75,000	Total: \$150,000	
<i>Prin. Invest.:</i> S D TREMAINE			
<i>Tech. Officer:</i> HQ/J BOYCE			
<i>CASE Category:</i> 11 - ASTRONOMY			
NAG 5 7395	PRINCETON UNIVERSITY	6682	
THEORETICAL STUDY OF SOLAR ACOUSTIC OSCILLATIONS			
05/11/1998 - 05/14/1999	FY99: \$0	Total: \$20,000	
<i>Prin. Invest.:</i> D KUMAR			
<i>Tech. Officer:</i> GSFC/W WAGNER			
<i>CASE Category:</i> 11 - ASTRONOMY			
NAG 5 7544	PRINCETON UNIVERSITY	6683	
HYDROLOGY OF EXTREME FLOODS FOR THE UNITED STATES EAST OF THE ROCKY MOUNTAINS			
06/23/1998 - 06/30/2001	FY99: \$0	Total: \$246,097	
<i>Prin. Invest.:</i> J A SMITH			
<i>Tech. Officer:</i> GSFC/E T ENGMAN			
<i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE			
NAG 5 7744	PRINCETON UNIVERSITY	6684	
DEVELOPMENT AND EVALUATION OF RADAR DATA QUALITY CONTROL ALGORITHMS			
10/28/1998 - 10/31/1999	FY99: \$96,491	Total: \$96,491	
<i>Prin. Invest.:</i> J A SMITH			
<i>Tech. Officer:</i> GSFC/O W THIELE			
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE			
NAG 5 8083	PRINCETON UNIVERSITY	6685	
STARSPOTS AND VARIABILITY IN AGB STARS			
01/21/1999 - 01/31/2000	FY99: \$26,871	Total: \$26,871	
<i>Prin. Invest.:</i> G R KNAPP			
<i>Tech. Officer:</i> GSFC/D K WEST			
<i>CASE Category:</i> 11 - ASTRONOMY			
NAG 5 8084	PRINCETON UNIVERSITY	6686	
PRIMARY AND SECONDARY ANISOTROPIES OF COSMIC MICRO WAVE BACKGROUND			
01/19/1999 - 02/28/2000	FY99: \$92,000	Total: \$92,000	
<i>Prin. Invest.:</i> U SELJAK			
<i>Tech. Officer:</i> GSFC/D K WEST			
<i>CASE Category:</i> 11 - ASTRONOMY			
NAG 5 8151	PRINCETON UNIVERSITY	6687	
ON THE SPACE-TIME ORGANIZATION OF SOIL MOISTURE FIELDS: DYNAMICS & INTERACTION WITH THE ATMOSPHERE			
02/05/1999 - 08/31/1999	FY99: \$76,782	Total: \$76,782	
<i>Prin. Invest.:</i> I RODRIQUEZ			
<i>Tech. Officer:</i> GSFC/M Y WEI			
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER			
NAG 5 8365	PRINCETON UNIVERSITY	6688	
STUDYING THE EVOLUTION OF X-RAY CLUSTERS OF GALAXIES USING LARGE-SCALE HIGH RESOLUTION COSMOLOGIC			
03/15/1999 - 03/14/2000	FY99: \$128,159	Total: \$128,159	
<i>Prin. Invest.:</i> R CEN			
<i>Tech. Officer:</i> GSFC/D K WEST			
<i>CASE Category:</i> 11 - ASTRONOMY			
NAG 5 8385	PRINCETON UNIVERSITY	6689	
EVOLUTION AND DYNAMICS OF PROTOSTELLAR DISKS			
03/03/1999 - 02/29/2000	FY99: \$45,000	Total: \$45,000	
<i>Prin. Invest.:</i> J GOODMAN			
<i>Tech. Officer:</i> GSFC/J BOYCE			
<i>CASE Category:</i> 11 - ASTRONOMY			
NAG 5 8676	PRINCETON UNIVERSITY	6690	
ATMOSPHERIC AEROSOL EVOLUTION AND EXCHANGE			
07/08/1999 - 07/14/2000	FY99: \$101,386	Total: \$101,386	
<i>Prin. Invest.:</i> L RUSSELL			
<i>Tech. Officer:</i> GSFC/M WEI			
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER			
NAG 8 969	PRINCETON UNIVERSITY	6691	
STUDIES IN ELECTROHYDRODYNAMICS			
06/02/1993 - 09/30/2000	FY99: \$0	Total: \$840,111	
<i>Prin. Invest.:</i> D A SAVILLE			
<i>Tech. Officer:</i> MSFC/BC GUYNES			
<i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER			
NAG 8 1368	PRINCETON UNIVERSITY	6692	
ELECTROHYDRODYNAMICS OF SUSPENSIONS			
05/30/1997 - 11/30/2000	FY99: \$65,000	Total: \$263,000	
<i>Prin. Invest.:</i> D SAVILLE			
<i>Tech. Officer:</i> MSFC/D NOENER			
<i>CASE Category:</i> 12 - CHEMISTRY			
NAG 8 1517	PRINCETON UNIVERSITY	6693	
TERRESTRIAL HYDROLOGY AND CLIMATE STUDIES USING EOS-ERA DATA (CATEGORY 2)			
05/07/1998 - 04/30/2001	FY99: \$175,264	Total: \$345,053	
<i>Prin. Invest.:</i> E F WOOD, NONE			
<i>Tech. Officer:</i> MSFC/J ARNOLD			
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE			
NAG 8 1521	PRINCETON UNIVERSITY	6694	
OROGRAPHIC RAINFALL IN THE APPALACHIAN REGION OF THE MISSISSIPPI RIVER BASIN			
05/15/1998 - 04/30/2001	FY99: \$69,010	Total: \$138,779	
<i>Prin. Invest.:</i> J A SMITH			
<i>Tech. Officer:</i> MSFC/J ARNOLD			
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE			
NAS 5 30110	PRINCETON UNIVERSITY	6695	
SPACE TELESCOPE IMAGING SPECTROGRAPH PROGRAM SUPPORT			
06/17/1987 - 09/30/2001	FY99: \$121,000	Total: \$787,000	
<i>Prin. Invest.:</i> E JENKINS			
<i>Tech. Officer:</i> GSFC/D VITAGLINO			
<i>CASE Category:</i> 11 - ASTRONOMY			
NAS 5 31719	PRINCETON UNIVERSITY	6696	
EOS INVESTIGATION "GLOBAL HYDROLOGIC PROCESSES & CLIMATE			
10/22/1991 - 01/31/1998	FY99: \$0	Total: \$1,086,500	
<i>Prin. Invest.:</i> E WOOD			
<i>Tech. Officer:</i> GSFC/W LAU			
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER			

NAS 5 96021 **PRINCETON UNIVERSITY** **6697**
 MICROWAVE ANISOTROPY PROBE INVESTIGATION (PHASE I DEFINITION STUDY)
 06/28/1996 - 09/30/2000 FY99: \$1,000,000 Total: \$7,903,000
Prin. Invest.: D WILKINSON
Tech. Officer: GSFC/R CUDDAPAH
CASE Category: 11 - ASTRONOMY

NAS 9 19519 **PRINCETON UNIVERSITY** **6698**
 LIFE SCIENCES FLIGHT EXPERIMENT-STRESS OF SPACE- FLIGHT: EFFECTS ON LEARNING
 12/18/1995 - 12/18/1999 FY99: \$0 Total: \$663,000
Prin. Invest.: T J SHORS, PH.D
Tech. Officer: JSC/S SAWYER
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 3 487 **PRINCETON UNIVERSITY** **6699**
 SCIENTIFIC SUPPORT FOR A SPACE SHUTTLE DROPLET BURNING EXPERIMENT
 07/15/1996 - 08/27/1999 FY99: \$82,081 Total: \$609,383
Prin. Invest.: F L DRYER
Tech. Officer: GRC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NCC 3 670 **PRINCETON UNIVERSITY** **6700**
 STRUCTURE AND RESPONSE OF SPHERICAL DIFFUSION FLAMES
 02/08/1999 - 12/29/2002 FY99: \$112,500 Total: \$112,500
Prin. Invest.: C K LAW
Tech. Officer: GRC/K SACKSTEDER
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 687 **PRINCETON UNIVERSITY** **6701**
 AERODYNAMICS AND CHEMICAL KINETICS OF PREMIXED FLAMES AT HIGH PRESSURE
 03/12/1999 - 01/03/2003 FY99: \$82,500 Total: \$82,500
Prin. Invest.: C K LAW
Tech. Officer: GRC/D SACKSTEDER
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 735 **PRINCETON UNIVERSITY** **6702**
 SCIENTIFIC SUPPORT FOR A SPACE SHUTTLE DROPLET BURNING EXPERIMENT
 09/30/1999 - 08/18/2002 FY99: \$54,000 Total: \$54,000
Prin. Invest.: F L DRYER
Tech. Officer: GRC/D L URBAN
CASE Category: 46 - MECHANICAL ENGR

NGT 51343 **PRINCETON UNIVERSITY** **6703**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 - 06/30/1998 FY99: -\$2,398 Total: \$63,602
Prin. Invest.: D A SAVILLE
Tech. Officer: HQ/G A LESANE
CASE Category: 43 - CHEMICAL ENGR

NGT 5 56 **PRINCETON UNIVERSITY** **6704**
 GSAP TRAINING GRANT FOR THEODORE ENDENY TITLE: NON. SOURCE POLLUTION MODELING USING REMOTE
 07/25/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: E WOOD
Tech. Officer: GSFC/E ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 61 **PRINCETON UNIVERSITY** **6705**
 KALMAN FILTER ESTIMATION OF SEASONAL CO2 FLUXES IN TO THE GLOBAL LAND/OCEAN SURFACE
 12/16/1997 - 09/14/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: J SARMIENTO
Tech. Officer: GSFC/M BURRELL
CASE Category: 13 - PHYSICS

NGT 5 30009 **PRINCETON UNIVERSITY** **6706**
 ASSESSMENT OF THE ROLE OF WATER VAPOR FEEDBACK IN VARIABILITY USING THE GFDL COUPLED OCEAN-ATMOSPHERE
 10/14/1996 - 08/31/1998 FY99: -\$543 Total: \$43,457
Prin. Invest.: D MANABE
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30015 **PRINCETON UNIVERSITY** **6707**
 ANALYSIS OF THE FACTORS DETERMINING THE DISTRIBUTION OF TROPOSPHERE
 10/23/1996 - 02/28/1999 FY99: \$0 Total: \$55,000
Prin. Invest.: H LEVY, 11
Tech. Officer: GSFC/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30113 **PRINCETON UNIVERSITY** **6708**
 CHANGE IN FOREST COVER OF NANG RONG, THAILAND: AN INTEGRATED PRGM OF LANDSCAPE ANALYSIS, EMPIRICAL
 10/01/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: S HUBBELL
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30134 **PRINCETON UNIVERSITY** **6709**
 RESPONSE OF ENSO TO MODULATIONS IN TROPICAL CLIMATE/STUDENT: WITTENBERG
 09/04/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: G PHILANDER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30137 **PRINCETON UNIVERSITY** **6710**
 TRANSBOUNDARY AIR POLLUTION IN ASIA/STUDENT: HOLLOWAY
 09/04/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: H LEVY, 11
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30156 **PRINCETON UNIVERSITY** **6711**
 THE INFLUENCE OF THE TROPOSPHERE'S STATIC STABILITY ON CLIMATE-SENSITIVITY
 08/28/1998 - 08/31/2000 FY99: \$12,900 Total: \$34,900
Prin. Invest.: I M HELD, SCHNEIDER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50033 **PRINCETON UNIVERSITY** **6712**
 MEASURING ANISOTROPY IN THE COSMIC MICROWAVE BACKGROUND RECEIVERS
 08/04/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: L PAGE/MILLER
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50065 **PRINCETON UNIVERSITY** **6713**
 STUDY OF PLASMA ACCELERATION AND HEATING DURING DIRECTION IN A
 MAGNETOHYDRODYNAMIC LABORATORY EXPERIMENT
 08/26/1997 - 07/31/2000 FY99: \$9,167 Total: \$53,167
Prin. Invest.: M YAMADA
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGINEERING

NGT 5 50193 **PRINCETON UNIVERSITY** **6714**
 EXPERIMENTAL & THEORETICAL STUDIES OF ANOMALOUS RESISTIVITY IN
 MAGNETIC RECONNECTION
 06/05/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: M YAMADA
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NAG 5 6776 **ROWAN UNIVERSITY** **6715**
 RESEARCH IN PLANETARY ASTRONOMY
 01/09/1998 - 06/30/1999 FY99: \$0 Total: \$77,293
Prin. Invest.: K MAGEE-SAUER
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 8 995 **ROWAN UNIVERSITY** **6716**
 JOVE
 11/19/1993 - 08/31/1998 FY99: \$0 Total: \$103,640
Prin. Invest.: V BROWN
Tech. Officer: MSFC/F SIX
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIRONMENTAL)

NCC 3 643 **ROWAN UNIVERSITY** **6717**
 NUMERICAL MODEL DEVELOPMENT OF FLAME PROPAGATION THROUGH
 NON UNIFORM PREMIXED GAS SYSTEMS
 08/24/1998 - 06/30/1999 FY99: \$0 Total: \$9,986
Prin. Invest.: A J MARCHESE
Tech. Officer: GRC/H D ROSE
CASE Category: 45 - ELECTRICAL ENGINEERING

NAG 1 1748 **RUTGERS STATE UNIVERSITY - PISCATAWAY** **6718**
 POLAR CLOUD PARAMETERS RETRIEVED FROM HIRS & AVHRR DATA:
 ALGORITHM DEVELOPMENT
 08/28/1995 - 12/31/1998 FY99: \$0 Total: \$89,515
Prin. Invest.: J A FRANCIS
Tech. Officer: LARC/B A BAUM
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2058 **RUTGERS STATE UNIVERSITY - PISCATAWAY** **6719**
 VALIDATION OF SATELLITE-BASED METHODS AND PARAMETERIZATIONS
 TO ESTIMATE SURFACE LONGWAVE RADIATION
 04/21/1998 - 08/31/1999 FY99: \$28,000 Total: \$42,171
Prin. Invest.: J A FRANCIS
Tech. Officer: LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2182 **RUTGERS STATE UNIVERSITY - PISCATAWAY** **6720**
 NANOCOMPOSITES BASED ON LIQUID CRYSTALLINE POLYMERS
 04/13/1999 - 10/31/2001 FY99: \$65,000 Total: \$65,000
Prin. Invest.: M JAFFE
Tech. Officer: LARC/N J JOHNSON, LARC/J W CONNELLEY
CASE Category: 12 - CHEMISTRY

NAG 2 1234 **RUTGERS STATE UNIVERSITY - PISCATAWAY** **6721**
 SELF ADAPTIVE SOFTWARE FOR AUTOMATED DESIGN OF COMPLEX
 ENGINEERING SYSTEMS
 07/24/1998 - 03/31/1999 FY99: \$294,118 Total: \$494,118
Prin. Invest.: S AMAREL, T ELLMAN
Tech. Officer: ARC/M R LOWRY
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2803 **RUTGERS STATE UNIVERSITY - PISCATAWAY** **6722**
 DYNAMICS AND EVOLUTION OF GALAXIES
 12/01/1994 - 12/14/1997 FY99: \$0 Total: \$315,000
Prin. Invest.: D MERRITT
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3158 **RUTGERS STATE UNIVERSITY - PISCATAWAY** **6723**
 GUARANTEED TIME OBSERVER: SPACE TELESCOPE IMAGING SPECTRO-
 GRAPH
 01/23/1996 - 09/30/2000 FY99: \$115,000 Total: \$564,000
Prin. Invest.: C L JOSEPH
Tech. Officer: GSFC/KRUEGER
CASE Category: 11 - ASTRONOMY

NAG 5 3432 **RUTGERS STATE UNIVERSITY - PISCATAWAY** **6724**
 DETERMINING THE HUBBLE CONSTANT USING X-RAY, OPTIC IONS OF
 CLUSTER
 10/30/1996 - 09/30/1999 FY99: \$129,908 Total: \$378,201
Prin. Invest.: J P HUGHES
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4327 **RUTGERS STATE UNIVERSITY - PISCATAWAY** **6725**
 ISOTOPIC INVESTIGATIONS OF EXTRATERRESTRIAL MATERIAL
 04/11/1997 - 02/29/2000 FY99: \$91,667 Total: \$200,000
Prin. Invest.: D F HERZOG
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4472 **RUTGERS STATE UNIVERSITY - PISCATAWAY** **6726**
 SIMULATION AND ANALYSIS OF METEORITIC MATERIAL
 06/17/1997 - 02/28/2000 FY99: \$192,067 Total: \$390,937
Prin. Invest.: D HEWINS
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4597 **RUTGERS STATE UNIVERSITY - PISCATAWAY** **6727**
 TRANSIENT HEATING IN THE SOLAR ACCRETION DISK
 05/15/1997 - 02/28/2001 FY99: \$66,667 Total: \$145,000
Prin. Invest.: R H HEWINS
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4794 **RUTGERS STATE UNIVERSITY - PISCATAWAY** **6728**
 DETERMINING THE ABUNDANCES OF THE LMC FROM SUPERNO
 06/17/1997 - 06/30/1999 FY99: \$0 Total: \$45,600
Prin. Invest.: J HUGHES
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6037 RUTGERS STATE UNIVERSITY - PISCATAWAY 6729
 BLACK HOLES AND GALAXY DYNAMICS
 10/08/1997 - 10/14/1999 FY99: \$130,000 Total: \$220,000
Prin. Invest.: D MERRITT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6186 RUTGERS STATE UNIVERSITY - PISCATAWAY 6730
 EFFECTS OF RADIATION ON DESORPTION OF SODIUM FROM RELATION TO
 ORIGINS OF SODIUM IN THE ATMOSPHERES O
 07/30/1997 - 09/14/1999 FY99: \$0 Total: \$109,000
Prin. Invest.: D MADEY
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6419 RUTGERS STATE UNIVERSITY - PISCATAWAY 6731
 ASCA OBSERVATIONS OF REMNANTS OF TYPE I
 01/07/1998 - 11/30/1998 FY99: \$18,831 Total: \$18,831
Prin. Invest.: J HUGHES
Tech. Officer: GSFC/N WHITE
CASE Category: 12 - CHEMISTRY

NAG 5 6420 RUTGERS STATE UNIVERSITY - PISCATAWAY 6732
 ROSAT HRI OBSERVATIONS OF SMC SNRS
 11/25/1997 - 10/31/1999 FY99: \$0 Total: \$57,558
Prin. Invest.: J HUGHES
Tech. Officer: GSFC/R PETRE
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 6614 RUTGERS STATE UNIVERSITY - PISCATAWAY 6733
 THE TEST AND EVALUATION OF UV DETECTORS
 02/12/1998 - 12/31/1999 FY99: \$42,000 Total: \$64,000
Prin. Invest.: C L JOSEPH
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 7015 RUTGERS STATE UNIVERSITY - PISCATAWAY 6734
 THEORETICAL ISSUES FOR INTERPRETING COSMIC MICROWAVE BACK-
 GROUND MAPS_ATP
 02/17/1998 - 04/30/2000 FY99: \$34,021 Total: \$66,421
Prin. Invest.: A B KOSOWSKY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7148 RUTGERS STATE UNIVERSITY - PISCATAWAY 6735
 UV SOLID STATE DETECTORS
 05/04/1998 - 04/14/2001 FY99: \$84,960 Total: \$159,604
Prin. Invest.: C L JOSEPH
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7437 RUTGERS STATE UNIVERSITY - PISCATAWAY 6736
 ESTABLISHING AND IMPROVING A TRACEABLE, TIME-DEPENDENT PRI-
 MARY PRODUCTION ALGORITHM FOR GENERATI
 06/11/1998 - 07/14/2000 FY99: \$80,142 Total: \$285,142
Prin. Invest.: M BEHRENFELD
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7539 RUTGERS STATE UNIVERSITY - PISCATAWAY 6737
 SCOPE GENERAL ASSEMBLY WORKSHOP: THE COMMONS REVISITED: AN
 AMERICAS PERSPECTIVE
 06/17/1998 - 05/31/1999 FY99: \$0 Total: \$10,000
Prin. Invest.: M ROBSON
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7564 RUTGERS STATE UNIVERSITY - PISCATAWAY 6738
 EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND
 REGIONS
 06/30/1998 - 06/30/2001 FY99: \$0 Total: \$115,143
Prin. Invest.: D ROBINSON
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 8820 RUTGERS STATE UNIVERSITY - PISCATAWAY 6739
 IN SITU MICROANALYSIS OF TRANSITION ELEMENT OXIDATION STATES IN
 SOLAR SYSTEM MATERIALS
 09/07/1999 - 08/31/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: J S DELANEY
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 8 1513 RUTGERS STATE UNIVERSITY - PISCATAWAY 6740
 SPATIAL & TEMPORAL VARIABILITY OF SOIL MOISTURE & ITS RELATION TO
 WATER & ENERGY BALANCES IN A MONSON
 06/01/1998 - 05/31/2001 FY99: \$117,317 Total: \$239,524
Prin. Invest.: Y LIU, R AVISSAR
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 5232 RUTGERS STATE UNIVERSITY - PISCATAWAY 6741
 EFFECTS OF RADIATION ON DESORPTION OF SODIUM FROM MINERAL
 SURFACES: RELATION TO ORIGINS OF SODIUM
 10/04/1996 - 09/30/1997 FY99: -\$2 Total: \$49,998
Prin. Invest.: T E MADEY
Tech. Officer: HQ/J BERGSTRALH, HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NGT 5 30062 RUTGERS STATE UNIVERSITY - PISCATAWAY 6742
 ANTHROPOGENIC PERTURBATIONS TO THE CARBON CYCLE FROM ESTI-
 MATED FROM NEW HISTORICAL LAND USE DATA
 09/10/1997 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: D ROBINSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50229 RUTGERS STATE UNIVERSITY - PISCATAWAY 6743
 CROP MODELING FOR MULTIPLE CROP PRODUCTION AND CONTROL FOR
 ADVANCED LIFE SUPPORT SYSTEMS
 11/04/1998 - 08/31/2000 FY99: \$44,000 Total: \$44,000
Prin. Invest.: K C TING, FLEISHER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 1 2154 RUTGERS STATE UNIVERSITY OF NJ COOK CAMPUS 6744
 SAGE II VALIDATION WITH A GLOBAL LIDAR NETWORK MY 1/3
 03/10/1999 - 12/31/2001 FY99: \$84,784 Total: \$84,784
Prin. Invest.: A ROBOCK, NONE
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4871 RUTGERS STATE UNIVERSITY OF NJ COOK CAMPUS 6745
 ASCA STUDY OF A CRAB LIKE SUPERNOVA REMNANT; ASCA OBSERVATIONS OF SYNYAEV-ZEL' DOVICH CLUSTERS
 07/14/1997 - 09/30/1999 FY99: \$0 Total: \$79,123
 Prin. Invest.: J HUGHES
 Tech. Officer: GSFC/N WHITE
 CASE Category: 12 - CHEMISTRY

NAG 5 4908 RUTGERS STATE UNIVERSITY OF NJ COOK CAMPUS 6746
 GENERATION OF 18-YEAR TOVS PATHFINDER DATASET FOR
 06/20/1997 - 09/30/1999 FY99: \$0 Total: \$165,223
 Prin. Invest.: D J FRANCIS
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6011 RUTGERS STATE UNIVERSITY OF NJ COOK CAMPUS 6747
 "NJ-NSCORT FOR BIOREGENERATIVE LIFE SUPPORT SYSTEM
 07/23/1997 - 04/30/2000 FY99: \$1,125,000 Total: \$3,124,998
 Prin. Invest.: H JAMES
 Tech. Officer: GSFC/G FOGLEMAN
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6982 RUTGERS STATE UNIVERSITY OF NJ COOK CAMPUS 6748
 REPRESENTING KEY PHYTOPLANKTON GROUPS IN OCEAN CARBON CYCLE MODELS
 03/23/1998 - 03/14/2001 FY99: \$165,302 Total: \$432,302
 Prin. Invest.: P G FALKOWSKI
 Tech. Officer: GSFC/J W CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7913 RUTGERS STATE UNIVERSITY OF NJ COOK CAMPUS 6749
 CLIMACTIC EFFECTS OF VOLCANIC ERUPTIONS
 12/17/1998 - 12/31/1999 FY99: \$96,489 Total: \$96,489
 Prin. Invest.: G STENCHIKOV
 Tech. Officer: GSFC/K H BERGMAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8213 RUTGERS STATE UNIVERSITY OF NJ COOK CAMPUS 6750
 THE IMPACTS OF LAND-USE/LAND-COVER CHANGE IN AMAZONIA ON HYDROMETEOROLOGICAL PROCESS
 03/01/1999 - 02/29/2000 FY99: \$120,236 Total: \$120,236
 Prin. Invest.: R AVISSAR
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 229 RUTGERS STATE UNIVERSITY OF NJ COOK CAMPUS 6751
 COOPERATIVE RESEARCH IN REGIONAL AND GLOBAL CLIMATE
 08/19/1997 - 12/31/1999 FY99: \$420,829 Total: \$820,829
 Prin. Invest.: R AVISSAR, NONE
 Tech. Officer: GSFC/R B STOTHERS
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7666 RUTGERS STATE UNIVERSITY OF NJ NEW BRUNSWICK 6752
 "THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PREDICT MOSQUITO-BORNE ENCEPHALITIS TRANSMISSION
 10/15/1998 - 12/31/1999 FY99: \$36,000 Total: \$36,000
 Prin. Invest.: W CRANS
 Tech. Officer: GSFC/B W MEESON
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4760 RUTGERS STATE UNIVERSITY OF NJ NEW BRUNSWICK 6753
 GENERATION OF AN 18-YEAR TOVS PATHFINDER DATA SET FOR THE ARCTIC BASIN
 10/05/1995 - 12/31/1998 FY99: \$0 Total: \$360,066
 Prin. Invest.: J FRANCIS
 Tech. Officer: HQ/M E MAIDEN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5003 RUTGERS STATE UNIVERSITY OF NJ NEW BRUNSWICK 6754
 NJ-NSCORT FOR BIOREGENERATIVE LIFE SUPPORT SYSTEM
 05/16/1996 - 09/30/1997 FY99: \$0 Total: \$1,000,000
 Prin. Invest.: H W JAMES, PH.D.
 Tech. Officer: HQ/R WHITE
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 5 99138 RUTGERS STATE UNIVERSITY OF NJ NEW BRUNSWICK 6755
 AIRBORNE (LIFT) METHOD FOR MEASURING PHOTOSYNTHETIC PERFORMANCE & PRIMARY PRODUCTIVITY
 04/15/1999 - 04/14/2000 FY99: \$318,949 Total: \$318,949
 Prin. Invest.: Z KOLBER
 Tech. Officer: GSFC/J B HARTLEY
 CASE Category: 61 - PSYCHOLOGY BIOLOGY

NAG 5 3715 STEVENS INSTITUTE OF TECHNOLOGY 6756
 STEVENS TECHNICAL ENRICHMENT PROGRAM-MIDDLE SCHOOL
 02/03/1997 - 01/31/1998 FY99: -\$444 Total: \$85,306
 Prin. Invest.: T G WILLIAMS
 Tech. Officer: GSFC/M MATEU
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4978 STEVENS INSTITUTE OF TECHNOLOGY 6757
 ELECTRON COLLISIONS WITH FREE RADICALS
 07/18/1997 - 06/30/2000 FY99: \$49,733 Total: \$116,133
 Prin. Invest.: D BECKER
 Tech. Officer: GSFC/R BEEBEE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6116 STEVENS INSTITUTE OF TECHNOLOGY 6758
 ACOUSTIC BONE MASS AND TRABECULAR
 09/05/1997 - 09/30/1998 FY99: \$0 Total: \$58,493
 Prin. Invest.: D DONSKOY
 Tech. Officer: HQ/B SIEGEL
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1063 STEVENS INSTITUTE OF TECHNOLOGY 6759
 INVESTIGATION OF AMBIENT PRESSURE
 01/05/1999 - 01/05/2000 FY99: \$138,834 Total: \$138,834
 Prin. Invest.: G P KORFIATIS
 Tech. Officer: JSC/J GRAF
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAGW 4586 STEVENS INSTITUTE OF TECHNOLOGY 6760
 ACOUSTIC BONE MASS AND TRABECULAR PROPERTY MEASUREMENTS
 07/07/1995 - 09/27/1998 FY99: \$0 Total: \$207,196
 Prin. Invest.: D M DONSKOY
 Tech. Officer: HQ/G SCHMIDT
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAS 5 99238 STEVENS INSTITUTE OF TECHNOLOGY 6761
 SENSOR INTERCOMPARISON & MERGER FOR BIOLOGICAL & INTERDIS-
 CIPINARY STUDIES.
 09/01/1999 - 08/31/2000 FY99: \$124,965 Total: \$124,965
Prin. Invest.: K STAMNES, B CHEN
Tech. Officer: GSFC/C MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NCC 5 224 STEVENS INSTITUTE OF TECHNOLOGY 6762
 FUNDING FOR 1997/98 STEVENS TECHNICAL ENRICHMENT P
 07/24/1997 - 08/31/2000 FY99: \$129,701 Total: \$302,690
Prin. Invest.: T WILLIAMS
Tech. Officer: GSFC/D MENCHAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 5 40041 STEVENS INSTITUTE OF TECHNOLOGY 6763
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 01/24/1997 - 02/28/2000 FY99: \$212,500 Total: \$595,000
Prin. Invest.: S THANGAM
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1367 UNIV OF MEDICINE AND DENTISTRY 6764
 MURINE DEVELOPMENT: CELLULAR & MOLECULAR ANALYSIS
 08/02/1999 - 12/14/1999 FY99: \$120,612 Total: \$120,612
Prin. Invest.: R S NOWAKOWSKI
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 9 18775 UNIV OF MEDICINE AND DENTISTRY 6765
 MEASUREMENT OF ENERGY EXPENDITURE DURING SPACE FLT
 10/09/1992 - 12/31/1997 FY99: -\$5,350 Total: \$929,387
Prin. Invest.: T P STEIN
Tech. Officer: JSC/J VILLARREAL
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 1001 UNIV OF MEDICINE AND DENTISTRY 6766
 EFFECT OF GRAVITY ON ENERGY EXPENDITURE BY RATS
 07/24/1997 - 06/30/2000 FY99: \$87,500 Total: \$240,000
Prin. Invest.: T P STEIN
Tech. Officer: ARC/C E WADE, ARC/S STANLEY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 950 UNIV. OF MEDICINE & DENTISTRY-NJ. 6767
 REDUCED GRAVITY: EFFECTS IN THE DEVELOPING NERVOUS SYSTEM
 (DEFINITION PHASE)
 12/16/1994 - 11/30/1999 FY99: \$320,931 Total: \$739,162
Prin. Invest.: R S KOWAKOWSKI
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 9 19409 UNIV. OF MEDICINE & DENTISTRY-NJ. 6768
 PROTEIN METABOLISM DURING LONG TERM SPACE FLIGHTS
 11/13/1995 - 05/31/1999 FY99: \$39,529 Total: \$570,519
Prin. Invest.: P T STEIN
Tech. Officer: JSC/J VILLARREAL
CASE Category: 56 - MEDICL

NEW MEXICO

NAG 9 992 COLLEGE OF SANTA FE 6769
 MOBILE SCIENCE PROJECT
 02/27/1998 - 12/30/1998 FY99: \$0 Total: \$130,000
Prin. Invest.: B COLEMAN
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1066 COLLEGE OF SANTA FE 6770
 MOBILE SCIENCE PROJECT PACE/ MSET
 01/07/1999 - 12/31/1999 FY99: \$100,000 Total: \$100,000
Prin. Invest.: B COLEMAN
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 972 EASTERN NEW MEXICO UNIVERSITY - MAIN CAMPUS 6771
 SUMMER SMET CAMP FOR RURAL MINORITIES GIRLS
 09/24/1997 - 09/30/2000 FY99: \$25,000 Total: \$75,000
Prin. Invest.: J MILLER
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6532 NEW MEXICO HIGHLANDS UNIVERSITY 6772
 ALLIANCE FOR NONLINEAR OPTICS
 12/07/1997 - 09/30/1999 FY99: \$453,070 Total: \$1,653,070
Prin. Invest.: R CLARK
Tech. Officer: GSFC/J MALONE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8734 NEW MEXICO HIGHLANDS UNIVERSITY 6773
 CCD PHOTOMETRY OF THE VESTA FAMILY OF ASTEROIDS & AN ANALYSIS
 OF THEIRIMPACT ORIGIN
 08/26/1999 - 07/31/2000 FY99: \$71,947 Total: \$71,947
Prin. Invest.: D V RYAN
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 9 1139 NEW MEXICO HIGHLANDS UNIVERSITY 6774
 AMERICAN INDIAN SCIENCE & TECH EDUCATION CONSORTIUM
 08/31/1999 - 08/30/2000 FY99: \$150,000 Total: \$150,000
Prin. Invest.: J C'DE BACA
Tech. Officer: JSC/L M ARMEDARIZ
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 1168 NEW MEXICO HIGHLANDS UNIVERSITY 6775
 JSC ASTROBIOLOGY INSTITUTE
 09/28/1999 - 09/29/2000 FY99: \$242,100 Total: \$242,100
Prin. Invest.: J C DEBACA, J R JUAREZ
Tech. Officer: JSC/D S MCKAY, JSC/L ARMENDARIZ
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 90042 NEW MEXICO HIGHLANDS UNIVERSITY 6776
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH
 02/11/1997 - 06/30/1999 FY99: \$0 Total: \$88,000
Prin. Invest.: B TAYLOER
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90069 NEW MEXICO HIGHLANDS UNIVERSITY 6777
 AMERICAN INDIAN SCIENCE AND TECHNOLOGY EDUCATION C
 04/04/1997 - 11/30/1999 FY99: \$1,000,000 Total: \$3,400,822
 Prin. Invest.: J C'DE BACA
 Tech. Officer: GSFC/M STOUYSENBERGER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 2847 NEW MEXICO INSTITUTE OF MINING & TECH 6778
 RADIATIVE PROCESSES AND TRACE GASES IN THE MIDDLE ATMOSPHERE
 12/21/1994 - 01/14/1998 FY99: -\$2,705 Total: \$32,295
 Prin. Invest.: K MINSCHWANER
 Tech. Officer: GSFC/C JACKMAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4139 NEW MEXICO INSTITUTE OF MINING & TECH 6779
 OBSERVATIONS & ANALYSIS OF ATMOSPHERIC HYDROXYL
 03/17/1997 - 03/14/2000 FY99: \$45,292 Total: \$131,590
 Prin. Invest.: K MINSCHWANER
 Tech. Officer: GSFC/M J KURYLO
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7109 NEW MEXICO INSTITUTE OF MINING & TECH 6780
 GROUND BASED MEASUREMENTS OF TOTAL OZONE, CLOUD PROPERTIES, AND UVDOSES
 03/25/1998 - 03/31/2000 FY99: \$35,955 Total: \$70,601
 Prin. Invest.: D R MINSCHWANER
 Tech. Officer: GSFC/J HERMAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1123 NEW MEXICO INSTITUTE OF MINING & TECH 6781
 ANALYSIS OF TOGA COARE LIGHTNING DATA
 02/22/1995 - 09/19/1999 FY99: \$0 Total: \$65,968
 Prin. Invest.: M BROOK
 Tech. Officer: MSFC/R J BLAKESLEE, MSFC/H J CHRISTIAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 1106 NEW MEXICO INSTITUTE OF MINING & TECH 6782
 THE SEARCH FOR MICROBIAL BIOMARKERS IN TERRESTRIAL DEPOSITS
 05/10/1999 - 05/09/2004 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: T L KIEFT
 Tech. Officer: JSC/F K GIBSON
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG10 188 NEW MEXICO INSTITUTE OF MINING & TECH 6783
 COMPARISON OF OBSERVATIONS FROM THE KSC LIDAR SYSTEM WITH
 RADAR OBSERVATIONS FOR IDENTIFICATION
 03/26/1996 - 10/23/1998 FY99: \$0 Total: \$20,667
 Prin. Invest.: W RISON Prin. Invest.: NONE
 Tech. Officer: KSC/L MAIER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30169 NEW MEXICO INSTITUTE OF MINING & TECH 6784
 COMBINED SIMULATION OF ALPINE GLACIERS AND CLOSED-BASIN
 LAKES: THE KEY TO DETERMINING THE LONG-TERM
 09/01/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: F M PHILLIPS, PLUMMER
 Tech. Officer: GSFC/M Y WEI
 CASE Category: 11 - ASTRONOMY

NAG 1 1868 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6785
 ACTIVE CONTROL OF AERODYNAMIC NOISE SOURCES MY 1/3
 09/20/1996 - 09/30/1999 FY99: \$78,358 Total: \$281,474
 Prin. Invest.: G A REYNOLDS, NONE
 Tech. Officer: LARC/R W WLEZIEN
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1334 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6786
 XENOPUS INNER EAR ORGAN INFORMATION IN AN ALTERED GRAVITY ENVIRONMENT
 07/08/1999 - 06/30/2000 FY99: \$99,749 Total: \$99,749
 Prin. Invest.: E E SERRANO
 Tech. Officer: ARC/C E WADE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 2 6007 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6787
 THEORETICAL & OBSERVATIONAL STUDIES OF SOLAR & EXT RA SOLAR
 PLANETARY ATMOSPHERES
 10/16/1996 - 06/30/2000 FY99: \$48,204 Total: \$288,379
 Prin. Invest.: M MARLEY
 Tech. Officer: ARC/C P MCKAY, ARC/A J HATCH
 CASE Category: 11 - ASTRONOMY

NAG 2 6030 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6788
 CAREER OPPORTUNITIES IN MATHEMATICS, ENGINEERING, TECHNOLOGY,
 & SCIENCE (COMETS) PROGRAMS
 03/09/1999 - 03/31/2000 FY99: \$100,001 Total: \$100,001
 Prin. Invest.: G V GARCIA
 Tech. Officer: ARC/B J COLLINS, ARC/G S LEE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 1491 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6789
 TELEMETERING AND TELECOMMUNICATIONS RESEARCH
 12/10/1990 - 10/31/1998 FY99: \$0 Total: \$5,610,221
 Prin. Invest.: W P OSBORNE, S HORAN
 Tech. Officer: GSFC/W MILLER
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 2426 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6790
 A NEW APPROACH TO MODELLING THE FAR-INFRARED RADIATION IN
 GALAXIES
 11/10/1993 - 11/14/1998 FY99: \$0 Total: \$143,322
 Prin. Invest.: R A WALTERBOS
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3114 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6791
 THE BEHAVIOR OF GAMMA-RAY BURSTS IN THE 7-14 KEV BANDPASS:
 FLUENCES, STRUCTURE, DURATION, AND DELAY
 10/19/1995 - 10/31/1997 FY99: -\$201 Total: \$39,799
 Prin. Invest.: T E HARRISON
 Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 3304 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6792
 ANALYSIS OF DATA ON THE ENERGY SPECTRUM AND CHARGE AND ISO-
 TOPIC COMPOSITION OF GALACTIC COSMIC.....
 07/24/1996 - 09/30/1999 FY99: \$0 Total: \$98,837
 Prin. Invest.: W R WEBBER
 Tech. Officer: GSFC/T VON ROSENVINGE
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3312 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6793
 X-RAY PROPERTIES OF RADIO GALAXIES AND THE FR I/II DIVISION
 07/31/1996 - 01/31/1998 FY99: -\$26 Total: \$9,703
 Prin. Invest.: M LEDLOW
 Tech. Officer: GSFC/R PETRE
 CASE Category: 11 - ASTRONOMY

NAG 5 3362 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6794
 STUDIES OF ASTROPHYSICAL PLASMAS IN CLUSTERS OF GALAXIES
 08/28/1996 - 12/31/1998 FY99: -\$1,123 Total: \$147,777
 Prin. Invest.: J O BURNS
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3410 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6795
 ASCA OBSERVATIONS OF ROSAT ALL SKY SURVEY SELECTED GROUPS
 09/11/1996 - 09/14/1998 FY99: -\$2 Total: \$11,748
 Prin. Invest.: J BURNS
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 3698 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6796
 THE CONTINUATION OF THE BCN GLOBAL GRB RAPID RESPONSE
 01/22/1997 - 01/31/1999 FY99: \$0 Total: \$34,874
 Prin. Invest.: B J MCNAMARA
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 3842 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6797
 MODELLING X-RAY CLUSTERS: EVOLUTION AND REALISTIC
 02/25/1997 - 02/29/2000 FY99: \$104,757 Total: \$299,540
 Prin. Invest.: A KLYPIN
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 4402 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6798
 MONITORING BASTE GAMMA-RAY BURSTS FOR POST-BURST, X-RAY
 EMISSION
 05/01/1997 - 05/14/1999 FY99: \$0 Total: \$39,648
 Prin. Invest.: T HARRISON
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 4987 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6799
 MODEL ATMOSPHERES AND SPECTRA FOR EXTRASOLAR GIANT
 06/26/1997 - 06/14/2000 FY99: \$55,700 Total: \$127,500
 Prin. Invest.: D MARLEY
 Tech. Officer: GSFC/J BERGSTRALH
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5060 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6800
 SEARCHING FOR ANTIMATTER AND COSMIC RAY STUDIES USING BESS
 05/01/1996 - 11/30/1999 FY99: \$0 Total: \$88,318
 Prin. Invest.: S J STOCHAJ
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
 CASE Category: 13 - PHYSICS

NAG 5 5068 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6801
 WIZARD-RELATED BALLOON PROGRAM FUNDING FOR THE FIRST YEAR
 OF THE GRANT
 05/03/1996 - 11/30/1999 FY99: \$0 Total: \$934,671
 Prin. Invest.: S J STOCHAJ
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
 CASE Category: 13 - PHYSICS

NAG 5 5073 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6802
 A RESEARCH PROGRAM IN COSMIC RAY ASTRONOMY AND RELATED LAB-
 ORATORY MEASUREMENTS
 05/03/1996 - 03/31/1999 FY99: \$0 Total: \$80,000
 Prin. Invest.: W P WEBBER
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
 CASE Category: 13 - PHYSICS

NAG 5 5159 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6803
 AN IMAGING SILICON CALORIMETER FOR USE ON ACCESS INCREMENTAL
 FUNDING FOR FIRST YEAR OF GRANT
 03/26/1998 - 12/31/1999 FY99: \$106,000 Total: \$187,000
 Prin. Invest.: S J STOCHAJ
 Tech. Officer: GSFC/B A MERRITT
 CASE Category: 11 - ASTRONOMY

NAG 5 5226 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6804
 FIRST YEAR FUNDING FOR NAG5-5226
 07/06/1999 - 07/05/2002 FY99: \$150,000 Total: \$150,000
 Prin. Invest.: S J STOCHAJ
 Tech. Officer: WSTF/B A MERRITT
 CASE Category: 13 - PHYSICS

NAG 5 6193 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6805
 ADVANCEMENT IN DETERMINING HAZARDOUS VOLATILE ORGA
 09/10/1997 - 01/31/1999 FY99: -\$950 Total: \$151,008
 Prin. Invest.: D EICEMAN
 Tech. Officer: GSFC/G FOGLEMAN
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6897 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6806
 EFFECTS OF RHEOLOGY ON THE DYNAMICS AND EVOLUTION OF MARS
 AND VENUS
 01/21/1998 - 12/31/1999 FY99: \$45,300 Total: \$92,577
 Prin. Invest.: V SOLOMATOV
 Tech. Officer: GSFC/P ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7520 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6807
 CENTER FOR TELEMETERING AND TELECOMMUNICATION SYSTEMS
 07/28/1998 - 04/30/2000 FY99: \$844,000 Total: \$1,344,000
 Prin. Invest.: S HORAN
 Tech. Officer: GSFC/W MILLER
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 7524 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6808
 TRANSPORTATION OF ENERGETIC PARTICLES IN THE GALAXY -
 APPROVED UNDER NRA 97-OSS-12
 06/09/1998 - 09/30/1999 FY99: \$0 Total: \$11,611
 Prin. Invest.: W R WEBBER
 Tech. Officer: GSFC/F C JONES
 CASE Category: 11 - ASTRONOMY

NAG 5 7795 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6809
 A PROPOSAL TO ASSIST IN THE INTERPRETATION OF DATA FROM THE
 COSMIC RAY ISOTOPE SPECTROMETER EXPERIM
 12/10/1998 - 12/31/1999 FY99: \$37,605 Total: \$37,605
 Prin. Invest.: D R WEBBER
 Tech. Officer: GSFC/D C LING
 CASE Category: 11 - ASTRONOMY

NAG 5 7904 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6810
 ADVANCED IR IMAGING OF SATURN
 12/03/1998 - 11/30/1999 FY99: \$51,200 Total: \$51,200
 Prin. Invest.: D J CHANOVER
 Tech. Officer: GSFC/T MORGAN
 CASE Category: 11 - ASTRONOMY

NAG 5 8242 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6811
 TESTING INFLATION AND DARK MATTER WITH NEW DATA, M ODELS, AND
 METHODS(ATP98)
 02/19/1999 - 02/29/2000 FY99: \$20,196 Total: \$20,196
 Prin. Invest.: A KLYPIN
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 9 938 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6812
 3D MULTIPHASE - FLOW MODELING OF OXYGEN FLOW SYSTEMS
 04/21/1997 - 12/31/1999 FY99: \$91,491 Total: \$282,664
 Prin. Invest.: I H LESLIE, NONE
 Tech. Officer: JSC/J M STOLTZFUS
 CASE Category: 46 - MECHANICAL ENGR

NAG 9 1073 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6813
 SUMMER FACULTY DIRECTOR'S GRANT
 01/20/1999 - 12/31/1999 FY99: \$0 Total: \$0
 Prin. Invest.: L T LAFRANCE
 Tech. Officer: JSC/D G SICKOREZ
 CASE Category: 46 - MECHANICAL ENGR

NAGW 4558 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6814
 ADVANCEMENT IN DETERMINING HAZARDOUS VOLATILE ORGANIC COM-
 POUNDS
 05/31/1995 - 09/30/1997 FY99: -\$1,863 Total: \$288,943
 Prin. Invest.: G A EICEMAN
 Tech. Officer: HQ/G C FOGLEMAN
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAS 5 31125 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6815
 O/M OF NATIONAL SCIENTIFIC BALLOON FACILITY & ENGINEERING SUP-
 PORT FOR NASA BALLOON PROGRAM
 09/14/1992 - 02/28/1998 FY99: -\$104,169 Total: \$74,715,811
 Prin. Invest.: J E HALLIGAN
 Tech. Officer: GSFC/R S NOCK, GSFC/H C NEEDLEMAN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 31688 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6816
 SOUNDING ROCKET ENGINEERING SUPPORT
 04/11/1990 - 07/21/1999 FY99: -\$67 Total: \$12,008,045
 Prin. Invest.: K LANE
 Tech. Officer: WFF/W W WEST, WFF/W R POWELL
 CASE Category: 41 - AERONAUTICAL ENGR

NAS 5 32252 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6817
 SOUNDING ROCKET ENGINEERING SUPPORT
 04/21/1995 - 04/30/2000 FY99: \$553,178 Total: \$12,196,641
 Prin. Invest.: A BAKER
 Tech. Officer: GSFC/N SCHULTZ
 CASE Category: 45 - ELECTRICAL ENGR

NAS 5 98009 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6818
 BALLOON SERVICES
 02/17/1998 - 02/28/2003 FY99: \$11,921,237 Total: \$28,220,429
 Prin. Invest.: N APPLICABLE
 Tech. Officer: WFF/R S NOCK, WFF/B A MERRITT
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 1002 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6819
 COCKPIT INTERRUPTIONS, DISTRACTIONS, & RECOVERY - A STUDY OF
 MEMORY & DIVIDED ATTENTION IN THE ...
 07/29/1997 - 06/30/2000 FY99: \$0 Total: \$157,231
 Prin. Invest.: G E YOUNG
 Tech. Officer: ARC/R K DISMUKES
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 422 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6820
 SIMULATIONS OF EXTENSIVE AIRCRAFT USING BEOWULF- CLASS
 SYSTEMS
 09/30/1999 - 08/31/2000 FY99: \$76,453 Total: \$76,453
 Prin. Invest.: S STOCHAJ
 Tech. Officer: GSFC/R E STREITMATTER
 CASE Category: 22 - COMPUTER SCIENCE

NGT 51383 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6821
 GRADUATE STUDIES RESEARCHERS PROGRAM
 06/26/1995 - 06/30/1998 FY99: -\$83 Total: \$43,917
 Prin. Invest.: M S MARLEY
 Tech. Officer: HQ/D HOLLAND
 CASE Category: 11 - ASTRONOMY

NGT 5 40061 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6822
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 03/04/1997 - 01/31/2000 FY99: \$475,000 Total: \$1,408,000
 Prin. Invest.: P HYNES
 Tech. Officer: HQ/J DASCH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50019 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6823
 EXPANDING SHEETS, HOT GAS, AND THE VIOLENT INTERSTES
 07/14/1997 - 12/31/1999 FY99: \$0 Total: \$44,000
 Prin. Invest.: R WALTERBOS
 Tech. Officer: GSFC/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50117 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6824
 DIRECT SOLUTION OF LARGE, SPARSE SYSTEMS OF EQUATI
 09/06/1997 - 06/30/2000 FY99: \$22,000 Total: \$64,500
 Prin. Invest.: S CASTILLO
 Tech. Officer: GSFC/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50148 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6825
 ENERGY BALANCE IN URANUS' ATMOSPHERE THE LUMINOSITY GSPR
 RECIPIENT: CHARLES M. WALTER
 09/10/1997 - 06/30/1998 FY99: -\$5 Total: \$10,995
 Prin. Invest.: M MARLEY
 Tech. Officer: HQ/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90054 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6826
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/12/1997 - 08/14/1998 FY99: \$0 Total: \$136,776
 Prin. Invest.: P HYNES
 Tech. Officer: GSFC/R LAWRENCE
 CASE Category: 49 - ENGINEERING, OTHER

NAG 9 937 SOUTHWESTERN INDIAN POLYTECHNIC INSTITUTE 6827
 SIPI PACE/MSET PROGRAM
 04/09/1997 - 04/08/2000 FY99: \$100,000 Total: \$300,000
 Prin. Invest.: J A JOHNSON
 Tech. Officer: JSC/L M ARMENDARIZ
 CASE Category: 79 - SOCIAL SCIENCE, OTHER

NAG 1 2018 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6828
 SIMULATION OF FLOW CONTROL USING DEFORMABLE SURFACES
 03/17/1998 - 03/16/2001 FY99: \$99,988 Total: \$199,956
 Prin. Invest.: C R TRUMAN
 Tech. Officer: LARC/R D JOSLIN
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1196 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6829
 NASA CENTER FOR AUTONOMOUS CONTROL ENGINEERING (AC) AT THE
 U/NM
 03/26/1998 - 01/31/2000 FY99: \$1,086,647 Total: \$2,881,944
 Prin. Invest.: M JAMSHIDI, R LUMIA
 Tech. Officer: ARC/G S LEE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 1976 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6830
 NEW PHENOMENA IN STRONGLY COUNTERFLOWING HE-II
 10/22/1996 - 09/30/2000 FY99: \$0 Total: \$176,000
 Prin. Invest.: S T BOYD, R V DUNCAN, M J ADVIAANS
 Tech. Officer: GRC/B S SINGH
 CASE Category: 13 - PHYSICS

NAG 5 3568 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6831
 USRC PROGRAM AND DESIGN OF VLSI PROCESSORS AND TE FLIGHT
 AND GROUND SYSTEMS
 02/19/1997 - 12/31/1999 FY99: \$0 Total: \$2,400,000
 Prin. Invest.: G K MAKI
 Tech. Officer: GSFC/W MILLER
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 4253 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6832
 MICROBEAM STUDIES OF PLANETARY MATERIALS/SUPPORT F TRON
 MICROSCOPE
 04/01/1997 - 12/14/1999 FY99: \$219,000 Total: \$745,000
 Prin. Invest.: D J PAPIKE
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 12 - CHEMISTRY

NAG 5 4441 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6833
 PETROLOGY OF PRESOLAR DUST AND ALTERATION IN CHOND
 04/28/1997 - 03/31/2000 FY99: \$155,833 Total: \$330,000
 Prin. Invest.: D J RIETMEIJER
 Tech. Officer: GSFC/J M BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4619 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6834
 METEORITES AND SMALL PRIMITIVE SOLAR SYSTEM BODIES
 05/20/1997 - 05/14/2000 FY99: \$26,667 Total: \$100,000
 Prin. Invest.: D J BREARLEY
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4935 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6835
 MICROSTRUCTURAL STUDIES BEARING ON THE ORIGIN OF C ASSOCIATED
 MINERALS IN MARTIAN METEORITE ALH 8400
 06/23/1997 - 06/30/2000 FY99: \$23,333 Total: \$78,000
 Prin. Invest.: A J BREARLEY
 Tech. Officer: GSFC/J M BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 6105 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6836
 DECIPHERING SULFUR ISOTOPIC SYSTEMATICS AS A POTENTIAL
 07/24/1997 - 01/31/1999 FY99: \$0 Total: \$49,000
 Prin. Invest.: C SHEARER
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 6417 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6837
 X-RAY PROPERTIES OF RADIO GALAXIES AND THE FR I/II DIVISION
 11/25/1997 - 11/30/1998 FY99: \$0 Total: \$2,800
 Prin. Invest.: M LEDLOW
 Tech. Officer: GSFC/R PETRE
 CASE Category: 11 - ASTRONOMY

NAG 5 6739 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6838
 THE X-RAY PROPERTIES OF RICH CLUSTERS FROM Z=0-0.2 USING THE
 ROSAT ALL-SKY-SURVEY
 12/19/1997 - 12/31/1999 FY99: \$48,400 Total: \$100,200
 Prin. Invest.: M LEDLOW
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 6999 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6839
 RIPARIAN ECOSYSTEM RESTORATION: EFFECTS OF FLOODING AND
 VEGETATION TYPE ON ANNUAL EVAPOTRANSPIRATION
 02/17/1998 - 02/14/2001 FY99: \$0 Total: \$700,000
 Prin. Invest.: C N DAHM
 Tech. Officer: GSFC/A C JANETOS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7006 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6840
 GRANT TITLE: "HIGH PERFORMANCE IMAGE PROCESSOR FOR
 SPACE" GSFC#5-3358.
 02/17/1998 - 02/14/2000 FY99: \$240,000 Total: \$325,000
 Prin. Invest.: G MAKI
 Tech. Officer: GSFC/W H MILLER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7360 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6841
 TITLE: "CULPRIT". GSFC CONTROL #5-3394, (4/1/98 THRU 9/30/98) FIRST
 YEAR FUNDS FOR THE UNSOLICIT
 05/15/1998 - 05/14/2000 FY99: \$426,441 Total: \$726,441
 Prin. Invest.: G MAKI
 Tech. Officer: GSFC/W H MILLER
 CASE Category: 45 - ELECTRICAL ENGR

NAG 5 7586 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6842
 HIGH PERFORMANCE DATA COMPRESSION VLSI ARCHITECTUR ES
 07/09/1998 - 04/30/1999 FY99: \$0 Total: \$329,000
 Prin. Invest.: G MAKI
 Tech. Officer: GSFC/W H MILLER
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 7691 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6843
 PROVIDES SUPPORT FOR THE FEDERATION EXPERIMENT EXE CUTIVE
 COMMITTEE
 09/18/1998 - 10/31/1998 FY99: -\$89,000 Total: \$0
 Prin. Invest.: S MORAIN
 Tech. Officer: GSFC/M MAIDEN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8392 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6844
 "RADIATION TOLERANT VLSI", GSFC CONTROL #3437.
 03/05/1999 - 03/14/2000 FY99: \$1,093,831 Total: \$1,093,831
 Prin. Invest.: G MAKI
 Tech. Officer: GSFC/W H MILLER
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 8454 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6845
 HIGH PERFORMANCE DATA COMPRESSION VLSI ARCHITECTUR E; GSFC
 CONTROLNO. 3474
 04/20/1999 - 04/30/2000 FY99: \$460,000 Total: \$460,000
 Prin. Invest.: G MAKI
 Tech. Officer: GSFC/W H MILLER
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 8821 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6846
 BIOMIMETIC SELF-ASSEMBLY OF HARDENED (NACRE-LIKE) COMPOSITE
 COATINGS FOR TRANSHAB
 09/21/1999 - 08/31/2000 FY99: \$188,087 Total: \$188,087
 Prin. Invest.: J BRINKER
 Tech. Officer: GSFC/R CROUCH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1606 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6847
 R/S INTEGRATED OPTOELECTRONIC COMPONENTS FOR SPACE APPLICA-
 TIONS
 03/12/1999 - 09/01/1999 FY99: \$82,813 Total: \$82,813
 Prin. Invest.: M OSINSKI
 Tech. Officer: MSFC/M WATSON
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 947 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6848
 GRANT FOR DEVELOPMENT OF A LOW COST RADIATION TOLERANT STAN-
 DARD CELL LIBRARY
 06/19/1997 - 06/19/1998 FY99: -\$2,253 Total: \$85,747
 Prin. Invest.: J W GAMBLES
 Tech. Officer: JSC/R L SHULER
 CASE Category: 49 - ENGINEERING, OTHER

NAG 9 995 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6849
 DESIGN & DEVELOP INTELLIGENT BIOMIMETIC ROBOTS
 03/12/1998 - 03/30/2000 FY99: \$100,000 Total: \$200,000
 Prin. Invest.: M SHAHINPOOR
 Tech. Officer: JSC/K KRISHEN
 CASE Category: 45 - ELECTRICAL ENGR

NAG 9 1017 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6850
 STIMULUS FOR STUDENTS TO STUDY PRE COLLEGE MATH
 05/28/1998 - 07/31/2000 FY99: \$98,057 Total: \$197,717
 Prin. Invest.: H E NEWSOM
 Tech. Officer: JSC/L ARMENDARIZ
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1042 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6851
 1998 NASA TRAINING PROJECT
 07/01/1998 - 06/30/2000 FY99: \$450,200 Total: \$900,400
 Prin. Invest.: J D TORRES
 Tech. Officer: JSC/L ARMENDARIZ
 CASE Category: 11 - ASTRONOMY

NAG 9 1111 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6852
 INSTITUTE FOR THE STUDY OF BIOMARKERS IN ASTROMATERIALS
 05/14/1999 - 05/13/2000 FY99: \$50,000 Total: \$50,000
 Prin. Invest.: J PAPIKE
 Tech. Officer: JSC/E K GIBSON
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3626 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6853
 LAYER SILICATES AND CARBONACEOUS MATERIALS IN CHON DRITE
 INTERPLANETARY DUST
 06/02/1993 - 03/31/1998 FY99: -\$5,571 Total: \$350,108
 Prin. Invest.: F RIETMEIJER
 Tech. Officer: HQ/J BOYCE
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG10 160 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6854
 CHEMICAL SENSORS BASED ON IR SPECTROSCOPY AND SURFACE-MOD-
 IFIED WAVEGUIDES
 06/27/1995 - 07/31/1998 FY99: \$0 Total: \$297,503
 Prin. Invest.: G LOPEZ
 Tech. Officer: KSC/J SAGER
 CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 5345 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6855
 TELEMEDICINE VIRTUAL COLLABORATORY
 08/16/1999 - 01/31/2000 FY99: \$56,551 Total: \$56,551
 Prin. Invest.: D ALVERSON
 Tech. Officer: ARC/K A SOUZA, ARC/B P DALTON
 CASE Category: 56 - MEDICL

NCC 5 309 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6856
 PERFORMING A REGIONAL ASSESSMENT & PROTOTYPING INTERNET
 ACCESSIBLE MTPE PRODUCTS TO THE UPPER RIO
 04/09/1998 - 02/28/2001 FY99: \$816,437 Total: \$946,437
 Prin. Invest.: S MORAIN
 Tech. Officer: GSFC/A TUYAHOV
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 350 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6857
 PREPARATION FOR UNIVERSITY OF STUDENTS IN UNDERGRADUATE
 EDUCATION
 07/01/1998 - 07/31/2003 FY99: \$499,999 Total: \$999,626
Prin. Invest.: M JAMSHIDI
Tech. Officer: HQ/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCCW 87 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6858
 CENTER FOR AUTONOMOUS CONTROL ENGINEERING
 08/04/1995 - 03/31/1999 FY99: \$373,857 Total: \$2,881,798
Prin. Invest.: T L COLEMAN
Tech. Officer: HQ/B L WHITE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC13 98002 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6859
 AFFILIATED RESEARCH CENTER PROGRAM-COMMERCIAL RE- MOTE
 SENSING PARTNERSHIPS WITH INDUSTRY
 08/11/1998 - 08/31/1999 FY99: \$150,000 Total: \$200,000
Prin. Invest.: P HOPKINS, S A MORAIN
Tech. Officer: SSC/H CARR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 10029 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6860
 NASA SPACE ENGINEERING RESEARCH CENTER FOR VLSI SYSTEM
 DESIGN
 12/09/1994 - 10/31/1997 FY99: \$64,020 Total: \$51,471
Prin. Invest.: G K MAKI
Tech. Officer: HQ/V BITTINGER
CASE Category: 49 - ENGINEERING, OTHER

NGT 90221 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6861
 UNDERGRADUATE STUDENT RESEARCHERS (UMF) PROGRAM
 09/14/1993 - 10/15/1997 FY99: \$8,539 Total: \$27,461
Prin. Invest.: M LEE
Tech. Officer: HQ/D K RUSSELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90050 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6862
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/12/1997 - 08/14/1998 FY99: \$0 Total: \$68,000
Prin. Invest.: G WARD
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 43 - CHEMICAL ENGR

NGT 9 31 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6863
 TRAINING GRANT
 06/03/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J J PAPIKE
Tech. Officer: JSC/J H JONES
CASE Category: 32 - GEOLOGICAL SCIENCE

NEW YORK

NAG 5 6956 BARNARD COLLEGE 6864
 THE SPECTRA OF BL LAC OBJECTS BETWEEN GEV AND TEV ENERGIES
 02/06/1998 - 01/31/2000 FY99: \$0 Total: \$13,946
Prin. Invest.: R MUKHERJEE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7341 BARNARD COLLEGE 6865
 STUDY OF THE CORRELATED MULTIWAVELENGTH VARIABILITY OF PKS
 0528+134
 05/28/1998 - 01/31/2000 FY99: \$0 Total: \$21,994
Prin. Invest.: R MUKHERJEE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NCC 2 963 BROOKLYN COLLEGE 6866
 BRAIN-PITUITARY AXIS DEVELOPMENT IN THE C.E.B.A.S. MINI-MODULE
 08/07/1996 - 06/30/1999 FY99: \$0 Total: \$358,102
Prin. Invest.: M P SCHREIBMAN
Tech. Officer: ARC/D A REISS-BUBENHEIM, ARC/W E HINDS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 7473 CAYUGA COUNTY COMMUNITY COLLEGE 6867
 DEFINING EARTH SYSTEM ENTERPRISE INFO NEEDS & PILOT PROGRAMS
 FOR UTILIZATION BY LOCAL GOVERNMENT
 06/15/1998 - 06/14/2000 FY99: \$3,000,000 Total: \$3,450,000
Prin. Invest.: R BROWN
Tech. Officer: GSFC/W CAMPBELL
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2268 CITY UNIV OF NEW YORK HERBERT H. LEHMAN COL 6868
 MATHEMATICS, SCIENCE AND TECHNOLOGY WITH EXCELLENCE IN
 RESEARCH: A SCIENCE AND TECHNOLOGY ENTRY PR
 05/17/1999 - 06/30/2002 FY99: \$60,000 Total: \$60,000
Prin. Invest.: A L ROTHSETIN
Tech. Officer: GRC/R F LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6085 CITY UNIV OF NEW YORK HERBERT H. LEHMAN COL 6869
 PACE/MSET AWARD
 09/03/1997 - 06/30/1999 FY99: \$0 Total: \$200,000
Prin. Invest.: A L ROTHSTEIN
Tech. Officer: HQ/M STOUSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2057 CITY UNIV. OF NY HOSTOS COMMUNITY COLL. 6870
 HOSTOS EARLY LEARNING COMMUNITIES
 08/19/1997 - 10/31/1999 FY99: \$75,000 Total: \$150,000
Prin. Invest.: G MELENDEZ-DELANEY
Tech. Officer: GRC/D CENTENO-GOMEZ
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 1 1913 CITY UNIV COLLEGE OF NEW YORK YORK COLLEGE 6871
 USING THE SCIENCE OF EVERYDAY OBJECTS TO TEACH SCIENCE A DIS-
 SEMINATION PLAN
 04/03/1997 - 09/02/1999 FY99: \$0 Total: \$30,001
Prin. Invest.: J M SCHLEIN
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7532 CITY UNIV COLLEGE OF NEW YORK YORK COLLEGE 6872
 LET'S DO SCIENCE
 06/11/1998 - 05/31/2000 FY99: \$197,103 Total: \$384,609
Prin. Invest.: J SCHLEIN
Tech. Officer: HQ/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2028 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6873
 EIGENSTRUCTURE ASSIGNMENT FOR FAULT TOLERANT FLIGHT CONTROL DESIGN
 03/09/1998 - 01/31/2001 FY99: \$99,770 Total: \$199,104
 Prin. Invest.: K SOBEL
 Tech. Officer: LARC/S M JOSHI
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1836 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6874
 MOLECULAR DYNAMICS OF FLUID-SOLID SYSTEM
 04/19/1996 - 04/30/2000 FY99: \$150,000 Total: \$518,000
 Prin. Invest.: J KOPLIK, J BANAVAR
 Tech. Officer: GRC/B SINGH
 CASE Category: 13 - PHYSICS

NAG 3 2074 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6875
 PICOSECOND GATED OPTICAL IMAGING OF DENSE FUEL SPRAYS
 09/17/1997 - 07/15/2000 FY99: \$0 Total: \$99,998
 Prin. Invest.: P P HO
 Tech. Officer: GRC/K J BREISACHER, GRC/L LIU
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2163 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6876
 HIGH RESOLUTION EXPERIMENTS OF COMPRESSIBLE TURBULENCE INTERACTING WITH EXPANSION OR SHOCK WAVES
 08/24/1998 - 04/05/2001 FY99: \$100,000 Total: \$200,000
 Prin. Invest.: Y ANDREPOULOS
 Tech. Officer: GRC/D O DAVIS
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2167 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6877
 USING SURFACTANTS TO ENHANCE THERMOCAPILLARY MIGRATION OF BUBBLES & DROPS & FACILITATE DROP SPREAD
 05/26/1998 - 04/12/2001 FY99: \$49,982 Total: \$124,955
 Prin. Invest.: C MALDARELLI, RBALASUBRAMANIAN
 Tech. Officer: GRC/B S SINGH
 CASE Category: 13 - PHYSICS

NAG 3 2258 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6878
 SCIENCE AND TECHNOLOGY TEACHERS FOR THE NEXT MILLENNIUM PHASE II (MASTAP)
 05/03/1999 - 03/22/2002 FY99: \$200,000 Total: \$200,000
 Prin. Invest.: L P JOHNSON
 Tech. Officer: GRC/R F LAWRENCE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2259 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6879
 ULTRASONIC ASSESSMENT OF IMPACT-INDUCED DAMAGE AND MICROCRACKING IN POLYMER MATRIX COMPOSITES
 05/05/1999 - 01/26/2002 FY99: \$100,000 Total: \$100,000
 Prin. Invest.: B LIAW
 Tech. Officer: GRC/K J BOWLES
 CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 3476 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6880
 CUNY COLLABORATIVE MASTAP SUMMER INSTITUTE
 11/18/1996 - 12/30/1998 FY99: \$0 Total: \$196,946
 Prin. Invest.: J SCHLEIN
 Tech. Officer: GSFC/M MATEU
 CASE Category: 21 - MATHEMATICS

NAG 5 4019 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6881
 CONTINUATION OF GRANT
 03/03/1997 - 11/30/2000 FY99: \$100,000 Total: \$300,000
 Prin. Invest.: D AKINS
 Tech. Officer: GSFC/S GLICKER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4911 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6882
 ADVANCING MINORITIES IN SCIENCE AND ENGINEERING
 07/16/1997 - 05/31/2000 FY99: \$157,608 Total: \$475,717
 Prin. Invest.: J BARBA
 Tech. Officer: GSFC/M MATEU
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6952 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6883
 TUNABLE SOLID STATE LASERS AND OPTICAL IMAGING
 02/02/1998 - 11/30/1999 FY99: \$1,000,000 Total: \$1,901,253
 Prin. Invest.: R R ALFANO
 Tech. Officer: GSFC/J MALONE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7129 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6884
 ROBUST ALGORITHMS FOR IMAGE REGISTRATION
 03/11/1998 - 03/14/2000 FY99: \$100,000 Total: \$200,000
 Prin. Invest.: G WOLBERG
 Tech. Officer: GSFC/J TILTON
 CASE Category: 22 - COMPUTER SCIENCE

NAG 5 7160 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6885
 HIGH DENSITY SOLID STATE MEMORIES
 03/11/1998 - 03/14/2000 FY99: \$98,305 Total: \$194,802
 Prin. Invest.: K SHUM
 Tech. Officer: GSFC/A GARRISON-DARRIN
 CASE Category: 45 - ELECTRICAL ENGR

NAG 5 7827 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6886
 WINDS, WATER BUDGETS, AND STABLE ISOTOPES IN TROPICAL CYCLONES USING TRMM AND QUICKSCAT
 12/14/1998 - 12/14/1999 FY99: \$69,464 Total: \$69,464
 Prin. Invest.: S GEDZELMAN
 Tech. Officer: GSFC/O W THIELE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4098 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6887
 TUNABLE SOLID STATE LASERS AND OPTICAL IMAGING
 08/02/1994 - 12/31/1997 FY99: \$0 Total: \$1,799,120
 Prin. Invest.: R ALFANO
 Tech. Officer: HQ/B L WHITE
 CASE Category: 13 - PHYSICS

NCC 3 607 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6888
 THE SYNERGISM OF ELECTORRHEOLOGICAL RESPONSE, DIELECTROPHORESIS AND SHEAR-INDUCED DIFFUSION IN FLOW
 04/07/1998 - 01/31/2002 FY99: \$90,000 Total: \$150,000
 Prin. Invest.: A ACRIVOS
 Tech. Officer: GRC/F D CHIARAMONTE
 CASE Category: 46 - MECHANICAL ENGR

NCC 5 74 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6889
 COOPERATIVE RESEARCH AND EDUCATION
 06/28/1994 - 06/30/1998 FY99: -\$17,292 Total: \$1,519,658
Prin. Invest.: L P JONES, J W FROST
Tech. Officer: GSFC/D TRAVIS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 98 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6890
 AN URBAN COLLABORATION FOR NETWORK CONNECTIVITY AND
 INTERNET ACCESS
 09/13/1995 - 09/14/2000 FY99: \$550,000 Total: \$2,071,000
Prin. Invest.: S AUSTIN
Tech. Officer: GSFC/J HARRINGTON
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 206 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6891
 PRESERVATION OF THE ENVIRONMENT THROUGH EDUCATION SENSING
 OF THE ATMOSPHERE AND OF LAND-USE/LAND-CO
 06/17/1997 - 05/31/1999 FY99: \$100,000 Total: \$400,000
Prin. Invest.: R KHANBILVARDI
Tech. Officer: GSFC/A A LACIS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 343 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6892
 COOPERATIVE RESEARCH & EDUCATION PROGRAM: INSTITUTE ON CLI-
 MATE AND PLANETS
 06/23/1998 - 06/30/2000 FY99: \$437,896 Total: \$782,194
Prin. Invest.: N A PARKER
Tech. Officer: GSFC/L TRAVIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 344 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6893
 INTEGRATION OF RESEARCH AND EDUCATION IN REMOTE SE NSING
 AND ENVIRONMENTAL CLIMATE RESEA
 07/15/1998 - 06/30/2000 FY99: \$500,000 Total: \$1,000,000
Prin. Invest.: R KHANBILVARDI
Tech. Officer: HQ/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 378 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6894
 SUCCESSION TO 5-129, RESEARCH IN GLOBAL CLIMATE VARIABILITY.
 01/25/1999 - 12/31/1999 FY99: \$262,679 Total: \$262,679
Prin. Invest.: N PARKER
Tech. Officer: GSFC/B CARLSON
CASE Category: 11 - ASTRONOMY

NAG 8 1423 CITY UNIVERSITY OF NEW YORK SYSTEM 6895
 R/S OBJECTIVE OPERATIONAL UTILIZATION OF SATELITE MICROWAVE
 SCATTEROMETER OBSERVATION OF TROPICAL
 01/01/1998 - 12/31/1999 FY99: \$50,000 Total: \$100,000
Prin. Invest.: W J PIERSON
Tech. Officer: MSFC/J SIMMONDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 129 CITY UNIVERSITY OF NEW YORK SYSTEM 6896
 RESEARCH IN GLOBAL CLIMATE VARIABILITY
 01/18/1996 - 12/31/1998 FY99: \$0 Total: \$610,000
Prin. Invest.: N A PARKER
Tech. Officer: GSFC/B E CARLSON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1891 CLARKSON UNIVERSITY 6897
 ABSOLUTE AND CONVECTIVE INSTABILITY AND SPLITTING OF A LIQUID
 05/30/1996 - 05/31/2000 FY99: \$114,000 Total: \$310,000
Prin. Invest.: S P LIN
Tech. Officer: GRC/M E HILL
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 2471 CLARKSON UNIVERSITY 6898
 EXPERIMENTAL AND ANALYTICAL STUDIES OF CAPILLARY-PUMPED LOOP
 HEAT PIPES
 12/22/1993 - 11/14/1998 FY99: -\$15,520 Total: \$206,096
Prin. Invest.: N T OBOT
Tech. Officer: GSFC/J KU
CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1266 CLARKSON UNIVERSITY 6899
 USE OF MICROGRAVITY TO CONTROL THE MICROSTRUCTURE OF EUTE-
 CICES
 05/01/1996 - 04/30/2000 FY99: \$135,000 Total: \$483,750
Prin. Invest.: W R WILCOX, L L REGEL
Tech. Officer: MSFC/P DOTY, MSFC/R POWER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1482 CLARKSON UNIVERSITY 6900
 R/S IMPROVED CRYSTAL QUALITY BY DETACHED SOLIDIFICATION IN
 MICROGRAVITY
 02/12/1998 - 01/31/2002 FY99: \$91,834 Total: \$155,167
Prin. Invest.: L L REGEL
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 1 325 CLARKSON UNIVERSITY 6901
 JET MIXING ENHANCEMENT BY FEEDBACK CONTROL
 12/30/1998 - 12/31/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: M N GLAUSER
Tech. Officer: LARC/M K PONTON
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52102 CLARKSON UNIVERSITY 6902
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 06/13/1995 - 06/30/1999 FY99: \$12,000 Total: \$88,001
Prin. Invest.: M GLAUSER, S D STOKES
Tech. Officer: LARC/W L SELLERS, LARC/T B GATSKI
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52214 CLARKSON UNIVERSITY 6903
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) YEAR 1
 06/10/1999 - 06/30/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: M N GLAUSER
Tech. Officer: LARC/C S YAO
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52222 CLARKSON UNIVERSITY 6904
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/29/1999 - 06/30/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: R F SCHMIT, M GLAUSER
Tech. Officer: LARC/J JUANG, LARC/L HORTA
CASE Category: 41 - AERONAUTICAL ENGR

NGT 3 52335 CLARKSON UNIVERSITY 6905
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/11/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
 Prin. Invest.: P PILLAY
 Tech. Officer: GRC/F J MONTAGANI
 CASE Category: 49 - ENGINEERING, OTHER

NGT 4 72400 CLARKSON UNIVERSITY 6906
 3-D HEAT TRANSFER EFFECTS ON THE PERFORMANCE OF HOT-FILM
 06/30/1995 - 08/30/1999 FY99: \$0 Total: \$88,000
 Prin. Invest.: M GLAUSER
 Tech. Officer: DFRC/E J COX, DFRC/S B BRITMAN
 CASE Category: 46 - MECHANICAL ENGR

NGT 8 52849 CLARKSON UNIVERSITY 6907
 MICROGRAVITY EQUIPMENT VIBRATIONS: A SENSITIVITY AND CONTROL STUDY
 07/21/1998 - 08/13/2001 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: G AHMADI
 Tech. Officer: MSFC/J DOWDY
 CASE Category: 46 - MECHANICAL ENGR

NGT 8 52853 CLARKSON UNIVERSITY 6908
 COMPUTATIONAL MODELING OF FUEL SPRAY FORMATION IN ROCKET ENGINES
 07/21/1998 - 08/13/2001 FY99: \$22,000 Total: \$44,000
 Prin. Invest.: G AHMADI
 Tech. Officer: MSFC/J F DOWDY
 CASE Category: 46 - MECHANICAL ENGR

NAG 2 1185 COLUMBIA UNIVERSITY 6909
 EFFECTS OF SPACE FLIGHT-ASSOCIATED STIMULI ON DEVELOPMENT OF MURINE & MEDAKA SENSORY-MOTOR SYSTEMS
 03/23/1998 - 09/30/1999 FY99: \$26,669 Total: \$52,312
 Prin. Invest.: D J WOLGEMUTH
 Tech. Officer: ARC/C A MITCHELL
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1345 COLUMBIA UNIVERSITY 6910
 DEVELOPMENT & FUNCTION OF THE MOUSE VESTIBULAR SYSTEM IN THE ABSENCE OF GRAVITY PERCEPTION
 07/16/1999 - 01/14/2000 FY99: \$84,925 Total: \$84,925
 Prin. Invest.: D J WOLGEMUTH
 Tech. Officer: ARC/M M AVRENER, ARC/G C JAHN
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 618 COLUMBIA UNIVERSITY 6911
 X-RAY ASTRONOMY
 02/01/1983 - 06/30/2000 FY99: \$7,500 Total: \$8,461,663
 Prin. Invest.: R NOVICK, W H-M KU, M VARTANIAN
 Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
 CASE Category: 13 - PHYSICS

NAG 5 1949 COLUMBIA UNIVERSITY 6912
 KINEMATICS OF THE NEW ZEALAND PLATE BOUNDARY: RELATIVE MOTION BY GPS ACROSS NETWORKS
 03/18/1992 - 05/31/1998 FY99: -\$2 Total: \$177,191
 Prin. Invest.: J BEAVAN
 Tech. Officer: GSFC/B G BILLS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 2556 COLUMBIA UNIVERSITY 6913
 NEW STARBURST GALAXIES WITH EXTREME X-RAY LUMINOSITIES & THROUGH THE GAS DARKLY: AN UNOBSERVED.....
 03/10/1994 - 09/30/1999 FY99: \$0 Total: \$106,504
 Prin. Invest.: D J HELFAND
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 2861 COLUMBIA UNIVERSITY 6914
 THE GAMMA-RAY LUMINOSITY FUNCTION OF RADIO PULSARS
 01/06/1995 - 01/14/1998 FY99: -\$294 Total: \$46,842
 Prin. Invest.: D J HELFAND
 Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 2872 COLUMBIA UNIVERSITY 6915
 GAMMA RAY OBSERVATIONS OF THE ORION CLOUD REGION WITH EGRET
 01/18/1995 - 01/31/1998 FY99: -\$531 Total: \$6,374
 Prin. Invest.: E APRILE, R MUKHERJEE
 Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 2916 COLUMBIA UNIVERSITY 6916
 1)THE ORIGIN OF HIGH X-RAY LUMINOSITIES IN OPTICALLY PASSIVE GALAXIES;2) RESOLVING THE SOURCE ETC
 03/17/1995 - 09/30/1998 FY99: -\$291 Total: \$35,787
 Prin. Invest.: D HELFAND
 Tech. Officer: GSFC/R PETRE
 CASE Category: 11 - ASTRONOMY

NAG 5 2987 COLUMBIA UNIVERSITY 6917
 SCALE-SPACE (WAVELET) ANALYSIS OF TOPOGRAPHY, AND ITS USE IN UNDERSTANDING THE EVOLUTION OF ETC.....
 06/30/1995 - 06/30/2000 FY99: \$0 Total: \$277,894
 Prin. Invest.: J WEISSEL
 Tech. Officer: GSFC/H V FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3091 COLUMBIA UNIVERSITY 6918
 DARK MATTER IN UNIVERSE AND IN GALAXY
 10/05/1995 - 10/14/1999 FY99: \$0 Total: \$210,000
 Prin. Invest.: M P KAMIONKOWSKI
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3229 COLUMBIA UNIVERSITY 6919
 THE NEW X-RAY/GAMMA-RAY PULSARS
 05/15/1996 - 06/14/2000 FY99: \$90,000 Total: \$360,000
 Prin. Invest.: J P HALPERN
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3288 COLUMBIA UNIVERSITY 6920
 WHITE DWARF PULSARS
 07/02/1996 - 01/31/1998 FY99: -\$23 Total: \$26,477
 Prin. Invest.: J PATTERSON
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 3307 COLUMBIA UNIVERSITY 6921
 1) MONITORING MRK 509: THE ORIGIN OF THE REPROCESS OR; 2) BROAD
 BAND X-RAY SPECTRUM OF NARROW.....
 07/24/1996 - 01/31/1998 FY99: -\$52 Total: \$60,648
Prin. Invest.: J HALTON
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3311 COLUMBIA UNIVERSITY 6922
 ECHO TOMOGRAPHY OF REPROCESSING SITES IN X-RAY BIN ARIES
 07/24/1996 - 01/31/1998 FY99: -\$1,105 Total: \$3,895
Prin. Invest.: C HASWELL
Tech. Officer: GSFC/J SWANK
CASE Category: 13 - PHYSICS

NAG 5 3319 COLUMBIA UNIVERSITY 6923
 COLUMBIA UNIVERSITY PARTICIPATION IN THE INFRARED SPACE
 OBSERVATORY (ISO) GUEST OBSERVER PROGRAM
 07/30/1996 - 08/14/1999 FY99: \$0 Total: \$77,400
Prin. Invest.: A P CROTTA
Tech. Officer: GSFC/WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3329 COLUMBIA UNIVERSITY 6924
 THE X-RAY SPECTRUM OF WZ SAGITTAE
 08/12/1996 - 02/14/1998 FY99: -\$206 Total: \$19,794
Prin. Invest.: J PATTERSON
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3460 COLUMBIA UNIVERSITY 6925
 XTE PROPOSAL (10095) HARD X-RAY EMISSION OF X-RAY BURSTERS
 10/15/1996 - 10/14/1997 FY99: -\$30 Total: \$14,270
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3463 COLUMBIA UNIVERSITY 6926
 INNOVATIVE RESEARCH PROGRAM - SUPERSHIELDS FOR GAM
 11/02/1996 - 09/30/1999 FY99: \$0 Total: \$388,763
Prin. Invest.: C J HAILEY
Tech. Officer: GSFC/D HOLLAND
CASE Category: 11 - ASTRONOMY

NAG 5 3482 COLUMBIA UNIVERSITY 6927
 CHANCELLOR'S MODEL SCHOOL PROJECT
 11/22/1996 - 08/31/1998 FY99: \$0 Total: \$497,198
Prin. Invest.: G LOPEZ
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3502 COLUMBIA UNIVERSITY 6928
 SN 1987A: FORMATION OF A SUPERNOVA REMNANT
 12/11/1996 - 12/14/1999 FY99: \$103,900 Total: \$268,600
Prin. Invest.: A P CROTTA
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3595 COLUMBIA UNIVERSITY 6929
 MONITORING X-RAY EMISSION FROM X-RAY BURSTERS
 01/02/1997 - 12/31/1998 FY99: \$0 Total: \$8,400
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3621 COLUMBIA UNIVERSITY 6930
 FE L-SHELL LINE EMISSION FROM SEYFERT GALAXIES
 03/07/1997 - 10/31/1998 FY99: \$0 Total: \$19,791
Prin. Invest.: S KAHN
Tech. Officer: GSFC/N WHITE
CASE Category: 13 - PHYSICS

NAG 5 3799 COLUMBIA UNIVERSITY 6931
 X-RAY TRANSIENTS IN STAR-FORMING REGIONS, \$17,000. EMISSIONS
 FROM X-RAY BURSTERS, \$7,500.00
 11/27/1996 - 11/30/1998 FY99: -\$180 Total: \$24,320
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3838 COLUMBIA UNIVERSITY 6932
 MULTIWAVELENGTH OBSERVATIONS OF THE GALACTIC SUPER 1915+105
 02/14/1997 - 08/31/1998 FY99: \$0 Total: \$21,097
Prin. Invest.: M TAVANI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3843 COLUMBIA UNIVERSITY 6933
 INTERPRETING BROAD DOUBLE-PEAKED EMISSION LINES IN
 02/20/1997 - 02/28/1998 FY99: -\$32 Total: \$51,868
Prin. Invest.: K CHEN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3891 COLUMBIA UNIVERSITY 6934
 LONG TERM HARD X-RAY MONITORING OF X-RAY BURSTERS
 05/27/1997 - 01/31/1999 FY99: \$0 Total: \$12,250
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 4028 COLUMBIA UNIVERSITY 6935
 MODELLING SOUTH PACIFIC OCEAN INTERACTIONS IN THE
 03/13/1997 - 02/28/2000 FY99: \$55,389 Total: \$261,592
Prin. Invest.: D M HOLLAND
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4052 COLUMBIA UNIVERSITY 6936
 MODELING OF DISTRIBUTION AND INTERANNUAL TO INTER- DECADEAL
 VARIATION OF AEROSOLS
 02/26/1997 - 02/29/2000 FY99: \$127,000 Total: \$356,525
Prin. Invest.: I TEGEN
Tech. Officer: GSFC/D RIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4058 **COLUMBIA UNIVERSITY** **6937**
 IMPACTS OF INTERANNUAL VARIABILITY ON AGRO ECOSYSTEMS AND
 FISHERIES
 03/26/1997 - 12/31/1998 FY99: \$0 Total: \$240,000
Prin. Invest.: M CANE
Tech. Officer: GSFC/D RENEL
CASE Category: 11 - ASTRONOMY

NAG 5 4112 **COLUMBIA UNIVERSITY** **6938**
 VARIABILITY & SPECTRAL STUDIES OF LUMINOUS SEYFERT SEARCH FOR
 THE REFLECTION COMPONENT IN A QUASAR-R
 04/15/1997 - 04/14/1998 FY99: -\$111 Total: \$27,031
Prin. Invest.: K LEIGHLY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4416 **COLUMBIA UNIVERSITY** **6939**
 KILOHERTZ QPOS IN ATOLL SOURCES
 05/01/1997 - 04/30/1999 FY99: -\$179 Total: \$28,897
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4424 **COLUMBIA UNIVERSITY** **6940**
 LOCATING AND DETERMINING THE NATURE OF A PERSISTENT
 GROJ1814-12
 05/07/1997 - 04/30/1998 FY99: -\$66 Total: \$4,934
Prin. Invest.: M TAVANI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4425 **COLUMBIA UNIVERSITY** **6941**
 MONITORING X-RAY EMISSION FROM X-RAY BUSTERS
 05/07/1997 - 04/30/1998 FY99: -\$69 Total: \$8,763
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4558 **COLUMBIA UNIVERSITY** **6942**
 EXPERIMENTAL AND MODELING STUDIES OF MASSIF ANORTH
 05/30/1997 - 02/28/1999 FY99: \$0 Total: \$60,000
Prin. Invest.: D LONGHI
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4633 **COLUMBIA UNIVERSITY** **6943**
 HARD X-RAY EMISSION OF X-RAY BURSTERS
 05/21/1997 - 05/31/1999 FY99: \$0 Total: \$15,190
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4634 **COLUMBIA UNIVERSITY** **6944**
 X-RAY EMISSION FROM THE SOFT X-RAY TRANSIENT AQUIL
 05/30/1997 - 05/14/1998 FY99: -\$11 Total: \$9,989
Prin. Invest.: M TAVANI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 4649 **COLUMBIA UNIVERSITY** **6945**
 EARLY DIFFERENTIATION OF THE MOON: EXPERIMENTAL AND
 06/11/1997 - 05/31/2000 FY99: \$190,000 Total: \$390,000
Prin. Invest.: D LONGHI
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4734 **COLUMBIA UNIVERSITY** **6946**
 WHITE DWARF PULSARS
 06/04/1997 - 06/14/1998 FY99: \$0 Total: \$20,711
Prin. Invest.: J PATTERSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4759 **COLUMBIA UNIVERSITY** **6947**
 OBSERVATIONS OF THE NEUTRON STAR RXJ0002.9+6246
 06/17/1997 - 05/31/1998 FY99: -\$30 Total: \$7,570
Prin. Invest.: C J HAILEY
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4789 **COLUMBIA UNIVERSITY** **6948**
 SEARCH FOR PULSATIONS FROM A NEARBY MILLISECOND PULSAR: MIRROR
 FOR A HIDDEN SEYFERT 1 NUCLEUS
 06/17/1997 - 06/30/1998 FY99: -\$147 Total: \$13,853
Prin. Invest.: J HALPERN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4827 **COLUMBIA UNIVERSITY** **6949**
 X-RAY EMISSION FROM THE UNIDENTIFIED GAMMA-RAY TRA
 06/20/1997 - 06/30/1998 FY99: -\$197 Total: \$14,903
Prin. Invest.: M TAVANI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 4971 **COLUMBIA UNIVERSITY** **6950**
 PHOTOCHEMISTRY OF METHANE IN MODEL ATMOSPHERES OF
 06/23/1997 - 06/14/2000 FY99: \$121,875 Total: \$225,000
Prin. Invest.: D BERSOHN
Tech. Officer: GSFC/R BEEBEE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5108 **COLUMBIA UNIVERSITY** **6951**
 LXEGRET: A LIQUID XENON GAMMA-RAY IMAGING TELESCOPE FOR HIGH
 ENERGY ASTROPHYSICS
 02/11/1997 - 11/30/1999 FY99: \$550,882 Total: \$1,421,882
Prin. Invest.: E APRILE
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5119 **COLUMBIA UNIVERSITY** **6952**
 REFLIGHT OF THE GAMMA-RAY ARC-MINUTE TELESCOPE IMAGING SYS-
 TEM (GRATIS) PAYLOAD
 04/09/1997 - 11/30/1999 FY99: \$0 Total: \$46,969
Prin. Invest.: C HALLEY
Tech. Officer: GSFC/H NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5123 COLUMBIA UNIVERSITY 6953
 X-RAY SPECTROSCOPIC LABORATORY EXPERIMENTS IN SUPPORT OF
 THE NASA X-RAY ASTRONOMY PROGRAM
 02/20/1997 - 05/31/2000 FY99: \$179,900 Total: \$549,600
Prin. Invest.: S M KAHN
Tech. Officer: GSFC/B J FLOWERS
CASE Category: 13 - PHYSICS

NAG 5 5129 COLUMBIA UNIVERSITY 6954
 HIGH ENERGY FOCUSING TELESCOPE FUNDING FOR THE FIRST YEAR OF
 THE GRANT.
 07/01/1997 - 09/30/1999 FY99: \$310,000 Total: \$815,300
Prin. Invest.: C HAILEY
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5196 COLUMBIA UNIVERSITY 6955
 RAIN INDUCED AIR-WATER GAS EXCHANGE: MECHANISMS AND GLOBAL
 EFFECTS
 05/08/1998 - 04/30/1999 FY99: \$0 Total: \$5,000
Prin. Invest.: P SCHLOSSER
Tech. Officer: GSFC/F L BLIVEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5247 COLUMBIA UNIVERSITY 6956
 GRANT NAG5-5247 RAIN INDUCED AIR-WATER GAS EXCH. PI DR.
 SCHLOSSER
 04/01/1999 - 03/28/2000 FY99: \$5,000 Total: \$5,000
Prin. Invest.: P SCHLOSSER
Tech. Officer: GSFC/F BLIVEN
CASE Category: 13 - PHYSICS

NAG 5 6035 COLUMBIA UNIVERSITY 6957
 SURFING THE HIGH DENSITY UNIVERSE
 10/03/1997 - 09/30/2000 FY99: \$133,100 Total: \$349,100
Prin. Invest.: D HELFANDO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6232 COLUMBIA UNIVERSITY 6958
 X-RAY EMISSION FROM THE UNIDENTIFIED GAMMA-RAY TRA J1838-0415;
 X-RAY LOCALIZATION OF GAMMA-RAYTRANS
 08/19/1997 - 08/14/1998 FY99: \$0 Total: \$27,200
Prin. Invest.: M TAVANI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6240 COLUMBIA UNIVERSITY 6959
 DETERMINATION OF RADIATIVE EFFECTS OF CONTRAILS AN
 09/15/1997 - 08/31/2000 FY99: \$10,882 Total: \$117,482
Prin. Invest.: A MACKIE
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6294 COLUMBIA UNIVERSITY 6960
 DEVELOP A UNIQUE SHARED RESEARCH FACILITY IN WHICH FOCUS ON
 THE CHANGING ATMOSPHER
 09/15/1997 - 08/14/2000 FY99: \$75,000 Total: \$225,000
Prin. Invest.: W BROECKER
Tech. Officer: GSFC/M KHAZENIE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6315 COLUMBIA UNIVERSITY 6961
 MODELING STUDIES OF THE EFFECTS OF WINDS AND HEAT TROPICAL
 OCEAN
 09/19/1997 - 09/30/1999 FY99: \$0 Total: \$291,359
Prin. Invest.: R SEAGER
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6321 COLUMBIA UNIVERSITY 6962
 THE BIO-ATMOSPHERIC CYCLES OF NITROGEN AND CARBON: POLLUTION
 AND TERRESTRIAL ECOSYSTEMS
 09/09/1997 - 07/31/2000 FY99: \$17,574 Total: \$99,382
Prin. Invest.: E MATTHEWS
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6331 COLUMBIA UNIVERSITY 6963
 IMPROVED SEA ICE/UPPER OCEAN MODELING IN THE GISS GCM FOR
 INVESTIGATING CLIMATE CHANGE
 10/02/1997 - 09/30/1998 FY99: \$0 Total: \$68,287
Prin. Invest.: D G MARTINSON
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6372 COLUMBIA UNIVERSITY 6964
 THE THEORETICAL CALCULATION AND VALIDATION OF THE ABSORPTION
 09/25/1997 - 07/31/1998 FY99: \$0 Total: \$59,900
Prin. Invest.: D MA
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6450 COLUMBIA UNIVERSITY 6965
 PRODUCTION AND ANALYSIS OF GLOBAL WAVE AND PHOTOSYNTHETI-
 CALLY ACTIVESURFACE IRRADIANCE FIELDS U
 10/31/1997 - 09/30/2000 FY99: \$38,000 Total: \$375,933
Prin. Invest.: J BISHOP
Tech. Officer: GSFC/M WEI
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6649 COLUMBIA UNIVERSITY 6966
 A DEDICATED ENVIRONMENTAL REMOTE SENSING FACILITY FOR THE
 COLUMBIAEARTH INSTITUTE
 12/04/1997 - 05/31/1999 FY99: \$0 Total: \$204,564
Prin. Invest.: J WEISSEL
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6876 COLUMBIA UNIVERSITY 6967
 INFLUENCE OF ARCTIC SEA ICE ON NATURAL AND ANTHROPOGENI-
 CALLY-INDUCEDCLIMATE VARIABILITY
 01/30/1998 - 03/31/2000 FY99: \$69,450 Total: \$112,850
Prin. Invest.: D G MARTINSON
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6877 COLUMBIA UNIVERSITY 6968
 MONSOONS, TIDAL MIXING AND PRODUCTIVITY IN THE BAN DA SEA, INDO-
 NESIA
 02/10/1998 - 12/31/1999 FY99: \$173,105 Total: \$388,053
Prin. Invest.: J MARRA
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6920 COLUMBIA UNIVERSITY 6969
 RXTE PROPOSAL - INVESTIGATING THE EXTRAORDINARY X-RAY VARIABILITY OF THE INFRARED QUASAR IRAS
 01/28/1998 - 01/31/1999 FY99: -\$74 Total: \$3,796
 Prin. Invest.: K LEIGHLY
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 6921 COLUMBIA UNIVERSITY 6970
 RXTE PROPOSAL - SEARCH FOR OBSCURED NUCLEUS IN A LUMINOUS IRAS GALAXY NGC6240
 01/28/1998 - 01/31/1999 FY99: -\$16 Total: \$5,788
 Prin. Invest.: K LEIGHLY
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 6948 COLUMBIA UNIVERSITY 6971
 MTPE: GLOBAL OCEAN-ATMOSPHERE INTERACTIONS FORCED BY TIDAL MIXING OF SST
 02/24/1998 - 06/30/2000 FY99: \$0 Total: \$127,651
 Prin. Invest.: A L FIELD
 Tech. Officer: GSFC/E LINDSTROM
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6959 COLUMBIA UNIVERSITY 6972
 RXTE PROPOSAL - X-RAY OBSERVATIONS OF PKS 0558-5 04. A TEST OF MODELS FOR NARROW-LINE SEYFERT 1 G
 02/06/1998 - 01/31/1999 FY99: -\$6 Total: \$23,422
 Prin. Invest.: K LEIGHLY
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7044 COLUMBIA UNIVERSITY 6973
 ASSESSING CURRENT AND POTENTIAL USE OF CLIMATE FOR ECAS TS FOR COMMUNAL FARM MANAGEMENT IN ZIMBABWE
 03/05/1998 - 02/29/2000 FY99: \$47,526 Total: \$77,502
 Prin. Invest.: M A CANE
 Tech. Officer: GSFC/D RIND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7138 COLUMBIA UNIVERSITY 6974
 MIDDLEWORLD TRANSPORT WITHIN THREE-DIMENSIONAL MODES: CHARACTERIZATION & SENSITIVITIES TO MODEL F
 05/06/1998 - 03/31/2000 FY99: \$50,570 Total: \$87,070
 Prin. Invest.: T HALL
 Tech. Officer: GSFC/R W STEWART
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7259 COLUMBIA UNIVERSITY 6975
 XTE PROPOSAL - RXTE STUDY OF A MINI-OUTBURST FROM THE SOFT X-RAY TRANSIENT AQL X-1
 04/14/1998 - 04/14/1999 FY99: \$0 Total: \$8,000
 Prin. Invest.: S KAHN
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7261 COLUMBIA UNIVERSITY 6976
 ASCA PROPOSAL - SPECTROSCOPIC OBSERVATIONS OF STEEP SPECTRUM NARROWLINE SEYFERT A GALAXIES
 04/15/1998 - 06/30/1999 FY99: \$0 Total: \$15,100
 Prin. Invest.: K M LEIGHLY
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 7461 COLUMBIA UNIVERSITY 6977
 POLYNYAS, PREDATORS AND PACK ICE VARIABILITY IN THE SOUTHERN OCEAN
 10/26/1998 - 12/31/2001 FY99: \$114,909 Total: \$114,909
 Prin. Invest.: S S JACOBS
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7673 COLUMBIA UNIVERSITY 6978
 CORE ANGULAR MOMENTUM AND THE IERS COORDINATING CENTER/ SUB-CENTERS ACTIVITY FOR MONITORING GLOBAL
 09/03/1998 - 08/31/2000 FY99: \$20,000 Total: \$40,000
 Prin. Invest.: X SONG
 Tech. Officer: GSFC/B F CHAO
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NAG 5 7687 COLUMBIA UNIVERSITY 6979
 SURFACE SOLAR RADIATION SOLAR BASE
 09/17/1998 - 08/31/1999 FY99: \$0 Total: \$100,000
 Prin. Invest.: G KUKLA
 Tech. Officer: GSFC/M IMISHCHENKO
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7688 COLUMBIA UNIVERSITY 6980
 GLOBAL CHANGE RESEARCH INFORMATION OFFICE
 09/11/1998 - 09/30/1999 FY99: \$500,000 Total: \$607,982
 Prin. Invest.: R MILLER
 Tech. Officer: GSFC/D KAHLE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7690 COLUMBIA UNIVERSITY 6981
 US GLOBAL CHANGE RESEARCH INFORMATION OFFICE (GCRI O)
 09/14/1998 - 09/30/1999 FY99: -\$500,000 Total: \$0
 Prin. Invest.: R B MILLER
 Tech. Officer: GSFC/D R KAHLE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7737 COLUMBIA UNIVERSITY 6982
 SCIENCE AND CALIBRATION SUPPORT FOR THE REFLECTING GRATING SPECTROMETER ON THE X-RAY MULTI-MIRROR M
 10/01/1998 - 09/30/1999 FY99: \$110,000 Total: \$110,000
 Prin. Invest.: S M KAHN
 Tech. Officer: GSFC/N E WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 7740 COLUMBIA UNIVERSITY 6983
 XTE A03 PROPOSAL - RECONSIDERING THE NATURE OF THE NEUTRON STAR CANDIDATE IN RCW 103
 10/28/1998 - 10/31/1999 FY99: \$9,401 Total: \$9,401
 Prin. Invest.: E GOTTHELF
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7814 **COLUMBIA UNIVERSITY** **6984**
 NEW ASCA AND ROSAT OBSERVATIONS OF ROTATION-POWERED PULSARS - ADP 98
 12/03/1998 - 12/14/1999 FY99: \$40,728 Total: \$40,728
Prin. Invest.: J P HALPERN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7846 **COLUMBIA UNIVERSITY** **6985**
 CONSOLIDATING CYGNUS REGION 1.809 MEV EMISSION
 11/25/1998 - 11/30/1999 FY99: \$5,000 Total: \$5,000
Prin. Invest.: U OBERLACK
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7922 **COLUMBIA UNIVERSITY** **6986**
 EFFECT OF HISTORICAL AND PROJECTED CLIMATE CHANGE ON SOUTHERN OCEAN SEA ICE AND ANTARCTIC MASS BALANCE
 12/21/1998 - 12/31/1999 FY99: \$39,000 Total: \$39,000
Prin. Invest.: D MARTINSON
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7935 **COLUMBIA UNIVERSITY** **6987**
 THE NATURE OF RADIO-QUIET X-RAY PULSARS IN SUPERNOVA REMNANTS (LTSA-98)
 12/14/1998 - 12/31/1999 FY99: \$108,841 Total: \$108,841
Prin. Invest.: E V GOTTHELF
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7971 **COLUMBIA UNIVERSITY** **6988**
 NARROW-LINE SEYFERT 1 GALAXIES (LTSA 98)
 12/22/1998 - 09/14/1999 FY99: \$69,709 Total: \$69,709
Prin. Invest.: K M LEIGHLY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7977 **COLUMBIA UNIVERSITY** **6989**
 ACCRETION RATES IN CATAclysmic VARIABLES (ADP98)
 12/23/1998 - 12/31/1999 FY99: \$52,357 Total: \$52,357
Prin. Invest.: J O PATTERSON
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8297 **COLUMBIA UNIVERSITY** **6990**
 VARIABILITY OF SEA LEVEL WITHIN THE INDONESIAN SEAS AND ITS RELATIONSHIP TO INTER-OCEANIC THROUGHFLOW
 02/23/1999 - 02/29/2000 FY99: \$94,821 Total: \$94,821
Prin. Invest.: A L GORDON
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8506 **COLUMBIA UNIVERSITY** **6991**
 COSMOLOGY AND PARTICLE ASTROPHYSICS THEORY (ATP - 98)
 05/10/1999 - 04/30/2000 FY99: \$75,000 Total: \$75,000
Prin. Invest.: M P KAMIONKOWSKI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8581 **COLUMBIA UNIVERSITY** **6992**
 INFLUENCE OF ARCTIC SEA ICE ON NATURAL AND ANTHROPOGENICALLY-INDUCED CLIMATE VARIABILITY
 06/02/1999 - 07/31/1999 FY99: \$0 Total: \$0
Prin. Invest.: D G MARTINSON
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8675 **COLUMBIA UNIVERSITY** **6993**
 HYDRODYNAMIC INSTABILITIES AND EDDY-MEAN FLOW INTERACTION IN THE SOUTHERN OCEAN
 07/08/1999 - 07/14/2000 FY99: \$112,128 Total: \$112,128
Prin. Invest.: D L WITTER
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8725 **COLUMBIA UNIVERSITY** **6994**
 SEASONAL AND INTERANNUAL VARIABILITY OF AIR-SEA-ICE COUPLING PROCESSES IN THE SUBPOLAR SOUTHERN OCEAN
 08/04/1999 - 08/31/2000 FY99: \$69,551 Total: \$69,551
Prin. Invest.: X YUAN
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NAG 5 8808 **COLUMBIA UNIVERSITY** **6995**
 US GLOBAL CHANGE RESEARCH INFORMATION OFFICE (GCRIO)
 09/08/1999 - 09/30/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: R MILLER
Tech. Officer: GSFC/D KAHLE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 97164 **COLUMBIA UNIVERSITY** **6996**
 ACRIM SCIENCE TEAM
 04/21/1997 - 04/20/2002 FY99: \$505,000 Total: \$1,042,000
Prin. Invest.: R C WILSON
Tech. Officer: GSFC/V GRIFFIN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 98035 **COLUMBIA UNIVERSITY** **6997**
 PHASE A CONCEPT STUDY FOR (BOLT) THE BROADBAND OBSERVATORY FOR THE LOCATION OF TRANSIENTS
 12/29/1997 - 09/21/1998 FY99: \$0 Total: \$163,000
Prin. Invest.: C J HAILEY
Tech. Officer: GSFC/S NELSON
CASE Category: 13 - PHYSICS

NAG 5 98037 **COLUMBIA UNIVERSITY** **6998**
 CONSTELLATION X-RAY MISSION
 06/22/1998 - 09/30/1999 FY99: \$92,000 Total: \$242,000
Prin. Invest.: S M KAHN
Tech. Officer: GSFC/J GRADY
CASE Category: 41 - AERONAUTICAL ENGINEERING

NAG 5 98162 **COLUMBIA UNIVERSITY** **6999**
 EOSDIS SEDAC
 07/01/1998 - 06/30/2003 FY99: \$2,178,200 Total: \$3,771,114
Prin. Invest.: R S CHEN
Tech. Officer: GSFC/M REPH
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 34 COLUMBIA UNIVERSITY 7000
 MODELING OF OCEAN CIRCULATION AND ATMOSPHERIC CHEMICAL SYSTEMS
 11/15/1985 - 11/30/1998 FY99: -\$2 Total: \$7,187,067
Prin. Invest.: C K CHU
Tech. Officer: GSFC/R STOTHERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 44 COLUMBIA UNIVERSITY 7001
 MODELLING OF ATMOSPHERIC CIRCULATION AND CHEMISTRY
 09/13/1991 - 02/28/1999 FY99: \$0 Total: \$2,492,431
Prin. Invest.: L POLVANI
Tech. Officer: GSFC/D PETEET
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 82 COLUMBIA UNIVERSITY 7002
 INTERDISCIPLINARY GLOBAL CHANGE RESEARCH
 12/01/1994 - 03/31/1999 FY99: \$0 Total: \$4,795,050
Prin. Invest.: L DRUYAN
Tech. Officer: GSFC/A LACIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 218 COLUMBIA UNIVERSITY 7003
 SEASONAL-TO-INTERANNUAL PREDICTION PROJECT
 07/21/1997 - 06/30/2000 FY99: \$105,246 Total: \$220,892
Prin. Invest.: M STIEGLITZ
Tech. Officer: GSFC/R KOSTER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 225 COLUMBIA UNIVERSITY 7004
 THE EFFECTS OF RAINFALL ON SEASONAL TO INTERANNUAL TROPICAL OCEANS AND COUPLED CLIMATE PREDICTABILITY
 08/13/1997 - 08/14/1999 FY99: \$0 Total: \$73,930
Prin. Invest.: D CHEN
Tech. Officer: GSFC/A J BUSALACCHI
CASE Category: 33 - OCEANOGRAPHY

NCC 5 270 COLUMBIA UNIVERSITY 7005
 INTERDISCIPLINARY GLOBAL CHANGE RESEARCH
 02/17/1998 - 12/31/1999 FY99: \$2,009,287 Total: \$3,314,177
Prin. Invest.: L M DRUYAN
Tech. Officer: GSFC/A LACIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 271 COLUMBIA UNIVERSITY 7006
 MODELING OF OCEAN CIRCULATION AND ATMOSPHERIC CHEMICAL SYSTEMS
 02/19/1998 - 11/30/1999 FY99: \$1,253,975 Total: \$2,316,801
Prin. Invest.: C K CHU
Tech. Officer: GSFC/R B STOTHERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 278 COLUMBIA UNIVERSITY 7007
 MODELLING OF ATMOSPHERIC CIRCULATION AND CHEMISTRY -GSFC CONTROL NO.5-3357
 05/28/1998 - 02/29/2000 FY99: \$243,065 Total: \$373,065
Prin. Invest.: L POLVANI
Tech. Officer: GSFC/R STOTHERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 328 COLUMBIA UNIVERSITY 7008
 INTERDISCIPLINARY RESEARCH ON CLIMATE VARIABILITY AND THE IMPACTS ASSOCIATED WITH REGIONAL CLIMATE C
 06/05/1998 - 01/14/2000 FY99: \$856,666 Total: \$1,795,507
Prin. Invest.: M A CHANDLER
Tech. Officer: GSFC/D RIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 44 COLUMBIA UNIVERSITY 7009
 RADIATIVE LINKS TO POLAR DYNAMICAL PROCESSES
 06/23/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: A D DELGENIO
Tech. Officer: GSFC/M S BURRELL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30016 COLUMBIA UNIVERSITY 7010
 INTERANNUAL SST VARIABILITY OF THE TROPICAL WESTER FROM CORAL SR/CA PROXY RECORDS FOR THE LAST 1000
 10/23/1996 - 08/31/1999 FY99: \$0 Total: \$60,600
Prin. Invest.: B P SCHLOSSER
Tech. Officer: GSFC/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NGT 5 30048 COLUMBIA UNIVERSITY 7011
 THIRD YEAR FUNDING: "RETRIEVAL OF TROPOSPHERIC AE SPACE BORNE POLARIZATION MEASUREMENTS" ST
 09/06/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: J HANSEN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30079 COLUMBIA UNIVERSITY 7012
 THIRD YEAR FUNDING: AN INVESTIGATION OF THE PROCE THE PCO2 OF THE PACIFIC SECTOR OF THE SOUTHERN OC
 09/11/1997 - 02/28/1999 FY99: -\$1 Total: \$21,999
Prin. Invest.: T TAKAHASHI
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30106 COLUMBIA UNIVERSITY 7013
 RAIN INDUCED AIR-WATER GAS EXCHANGE: MECHANISMS AND GLOBAL EFFECTS
 10/24/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: D SCHLOSSER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30123 COLUMBIA UNIVERSITY 7014
 AN INTERMEDIATE-LEVEL MODEL FOR THE TROPICAL ATMOS
 09/30/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M CANE
Tech. Officer: GSFC/M WEI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30167 COLUMBIA UNIVERSITY 7015
 VARIABILITY OF BIOGEOCHEMICAL REGIMES IN THE ROSS SEA: AN ANALYSIS USING HIGH RESOLUTION SEA SURFACE
 09/02/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: T TAKAHASHI
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50152 COLUMBIA UNIVERSITY 7016
 THE DEVELOPMENT OF THE REFLECTION GRATING SPECTROM ATORY
 AND ITS APPLICATION TO THE STUDY OF ACCRETI
 09/11/1997 - 09/30/2000 FY99: \$22,000 Total: \$65,596
Prin. Invest.: S KAHN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50158 COLUMBIA UNIVERSITY 7017
 ARCMINUTE GAMMA-RAY IMAGING OF CENTAURUS A
 09/11/1997 - 06/30/2000 FY99: \$22,000 Total: \$65,596
Prin. Invest.: C HAILEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50184 COLUMBIA UNIVERSITY 7018
 THEORETICAL STUDY OF DARK MATTER SIGNATURES IN EGRET AND
 GLAST
 05/27/1998 - 06/30/2000 FY99: \$22,000 Total: \$43,876
Prin. Invest.: M KAMIONKOWSKI
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 - PHYSICS

NAG 1 1184 CORNELL UNIVERSITY 7019
 CRACK GROWTH PREDICTION METHODOLOGY FOR MULTI-SITE DAM-
 AGE _____ FD
 09/27/1990 - 09/30/1998 FY99: -\$1 Total: \$946,275
Prin. Invest.: A R INGRAFFEA, D V SWENSON
Tech. Officer: LARC/J C NEWMAN, LARC/C E HARRIS
CASE Category: 46 - MECHANICAL ENGR

NAG 1 2013 CORNELL UNIVERSITY 7020
 CRACK TURNING AND ARREST MECHANISMS FOR INTEGRAL STRUC-
 TURES
 03/03/1998 - 09/30/1999 FY99: \$40,243 Total: \$78,642
Prin. Invest.: R PETTIT
Tech. Officer: LARC/P B BOGERT, LARC/J H STARNES, JR.
CASE Category: 46 - MECHANICAL ENGR

NAG 1 2069 CORNELL UNIVERSITY 7021
 BASIC RESEARCH IN CRACK GROWTH PREDICTION METHODOLOGIES
 05/20/1998 - 12/31/1999 FY99: \$113,472 Total: \$173,472
Prin. Invest.: A R INGRAFFEA, P A WAWRZYNEK
Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU
CASE Category: 46 - MECHANICAL ENGR

NAG 2 893 CORNELL UNIVERSITY 7022
 FORMAL SUPPORT FOR HIGH ASSURANCE SYSTEMS
 04/06/1994 - 03/31/2000 FY99: \$0 Total: \$632,751
Prin. Invest.: F B SCHNEIDER
Tech. Officer: ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1030 CORNELL UNIVERSITY 7023
 ANALYSIS OF STELLAR OCCULTATION & IMAGING DATA FOR THE RINGS
 OF SATURN URANUS
 03/06/1996 - 12/31/1998 FY99: \$0 Total: \$36,618
Prin. Invest.: P D NICHOLSON
Tech. Officer: ARC/J N CUZZI
CASE Category: 11 - ASTRONOMY

NAG 2 1145 CORNELL UNIVERSITY 7024
 EVALUATION OF LOW BACKGROUND HIGH PERFORMANCE SI I BC DETEC-
 TORS
 07/22/1997 - 05/31/2000 FY99: \$43,375 Total: \$84,422
Prin. Invest.: T L HERTER
Tech. Officer: ARC/C R MCCREIGHT, ARC/R E MCMURRAY
CASE Category: 11 - ASTRONOMY

NAG 3 1451 CORNELL UNIVERSITY 7025
 NUMERICAL MODELING OF LOW-DENSITY PLUMES USING A MONTE
 CARLO TECHNIQUE
 03/12/1993 - 11/30/1999 FY99: \$0 Total: \$383,593
Prin. Invest.: I D BOYD
Tech. Officer: GRC/P F PENKO
CASE Category: 13 - PHYSICS

NAG 3 1791 CORNELL UNIVERSITY 7026
 MULTICOMPONENT DROPLET COMBUSTION IN MICROGRAVITY SOOT
 FORMATION, EMULSION, METTAL-BASE ADDITIVES AN
 09/27/1995 - 09/25/1999 FY99: \$50,000 Total: \$260,000
Prin. Invest.: C T AVEDISIAN
Tech. Officer: GRC/R O COLANTONIO
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1854 CORNELL UNIVERSITY 7027
 STABILITY OF SHAPE HELD BY SURFACE TENSION AND SUB JECTED TO
 FL9OW
 05/01/1996 - 04/30/2000 FY99: \$100,000 Total: \$392,009
Prin. Invest.: P H STEEN
Tech. Officer: GRC/B S SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 3 1958 CORNELL UNIVERSITY 7028
 MODELING OF PLUME CONTAMINATION ON THE X-33
 08/20/1996 - 12/17/1998 FY99: \$0 Total: \$168,400
Prin. Invest.: I D BOYD, D A CAUGHEY
Tech. Officer: GRC/B D REED
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 3 1993 CORNELL UNIVERSITY 7029
 SIMULATION OF CRACK GROWTH IN SPIRAL-BEVEL GEARS
 12/11/1996 - 12/05/1999 FY99: \$77,441 Total: \$220,020
Prin. Invest.: A R INGRAFFEA
Tech. Officer: GRC/D G LOWICKI
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2112 CORNELL UNIVERSITY 7030
 STUDIES OF GAS-PARTICLE INTERACTIONS IN A MICROGRAVITY FLOW
 CELL
 01/15/1998 - 12/31/2001 FY99: \$124,990 Total: \$224,990
Prin. Invest.: M LOUGE
Tech. Officer: GRC/R HAKIMAZADEH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2224 CORNELL UNIVERSITY 7031
 HIGH PRESSURE COMBUSTION OF AN UNSUPPORTED SOOTING FUEL
 DROPLET IN MICROGRAVITY
 01/12/1999 - 11/11/2002 FY99: \$95,669 Total: \$95,669
Prin. Invest.: T AVEDISIAN
Tech. Officer: GRC/D L DIETRICH
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2253 **CORNELL UNIVERSITY** **7032**
 INTERNATIONAL WORKSHOP ON DUNE FORMATION AND MIGRATION
 04/05/1999 - 07/18/1999 FY99: \$12,750 Total: \$12,750
 Prin. Invest.: J T JENKINS
 Tech. Officer: GRC/F P CHIARAMONTE
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 2851 **CORNELL UNIVERSITY** **7033**
 NEUTRO STAR POPULATION DYNAMICS
 12/21/1994 - 01/14/1999 FY99: \$0 Total: \$156,000
 Prin. Invest.: D F CHERNOFF
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3097 **CORNELL UNIVERSITY** **7034**
 THEORETICAL PHYSICS OF X-RAY AND GAMMA-RAY EMISSION FROM
 MAGNETIZED NEUTRON STARS
 10/10/1995 - 10/14/1999 FY99: \$0 Total: \$192,000
 Prin. Invest.: I M WASSERMAN
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3347 **CORNELL UNIVERSITY** **7035**
 ISO DATA ANALYSIS SUPPORT
 08/12/1996 - 08/14/2000 FY99: \$0 Total: \$456,764
 Prin. Invest.: G J STACEY
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3427 **CORNELL UNIVERSITY** **7036**
 DEVELOPMENT AND APPLICATION OF NEW TOOLS FOR STATISTICAL DISCRETE
 ASTROPHYSICAL DATA
 09/26/1996 - 09/30/2000 FY99: \$209,000 Total: \$411,853
 Prin. Invest.: T J LOREDO
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3515 **CORNELL UNIVERSITY** **7037**
 MULTIWAVELENGTH STUDIES OF SPIN-DRIVEN PULSARS
 01/22/1997 - 01/31/2000 FY99: \$0 Total: \$55,000
 Prin. Invest.: J M CORDES
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 3626 **CORNELL UNIVERSITY** **7038**
 PHYSICAL STUDIES OF PLANETARY AND SATELLITE SURFACE
 02/12/1997 - 10/31/1999 FY99: \$77,000 Total: \$361,000
 Prin. Invest.: J VEVERKA
 Tech. Officer: GSFC/P G ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3627 **CORNELL UNIVERSITY** **7039**
 SHAPES, SURFACES AND INTERIORS OF SATELLITES
 02/12/1997 - 09/30/1999 FY99: \$99,900 Total: \$173,800
 Prin. Invest.: P C THOMAS
 Tech. Officer: GSFC/P G ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3639 **CORNELL UNIVERSITY** **7040**
 STUDY OF THE EFFECTS OF PHOTOMETRIC GEOMETRY ON SP MEASUREMENTS
 02/12/1997 - 12/31/1999 FY99: \$50,000 Total: \$150,000
 Prin. Invest.: P HELFENSTEIN
 Tech. Officer: GSFC/P G ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3795 **CORNELL UNIVERSITY** **7041**
 DYNAMICAL STUDIES OF PLANETARY RINGS
 03/24/1997 - 09/30/1999 FY99: \$61,000 Total: \$178,100
 Prin. Invest.: P D NICHOLSON
 Tech. Officer: GSFC/P G ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3800 **CORNELL UNIVERSITY** **7042**
 STATISTICS OF GAMMA RAY BURSTS
 11/27/1996 - 11/30/1999 FY99: \$0 Total: \$50,000
 Prin. Invest.: I M WASSERMAN
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 3862 **CORNELL UNIVERSITY** **7043**
 STUDIES OF THERMAL STRUCTURES AND MOTIONS OF PLANETARY
 01/24/1997 - 11/30/1999 FY99: \$115,000 Total: \$321,000
 Prin. Invest.: D J GIERABCH
 Tech. Officer: GSFC/J BERGSTRALH
 CASE Category: 11 - ASTRONOMY

NAG 5 3910 **CORNELL UNIVERSITY** **7044**
 PHYSICAL PROCESSES IN PLANETARY RINGS
 03/07/1997 - 12/31/1999 FY99: \$113,600 Total: \$460,800
 Prin. Invest.: D A BURNS
 Tech. Officer: GSFC/P ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4205 **CORNELL UNIVERSITY** **7045**
 STUDIES IN PLANETARY GEOSCIENCES
 03/19/1997 - 09/30/1999 FY99: \$102,000 Total: \$311,903
 Prin. Invest.: S W SQUYRES
 Tech. Officer: GSFC/P G ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4220 **CORNELL UNIVERSITY** **7046**
 SURFACE PROPERTIES FROM RADAR AND RADIO OBSERVATIONS
 03/15/1997 - 02/28/2000 FY99: \$55,000 Total: \$161,900
 Prin. Invest.: D B CAMPBELL
 Tech. Officer: GSFC/P ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4222 **CORNELL UNIVERSITY** **7047**
 COST OPTIMIZATION OF MENUS AND FOOD PREPARATION FOR CELLS STATIONS
 03/15/1997 - 03/14/2000 FY99: \$370,287 Total: \$507,465
 Prin. Invest.: J B HUNTER
 Tech. Officer: GSFC/M AVERNER
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4229 **CORNELL UNIVERSITY** **7048**
 INVESTIGATION OF ANCIENT HIGHLAND/LACUSTRINE SITES ON MARS
 03/21/1997 - 09/30/1999 FY99: \$0 Total: \$40,000
 Prin. Invest.: D W SQUYRES
 Tech. Officer: GSFC/M BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4333 **CORNELL UNIVERSITY** **7049**
 MARS SURFACE MINERALOGY FROM HST AND MARINER 6.7 I
 04/25/1997 - 04/30/2001 FY99: \$56,000 Total: \$99,000
 Prin. Invest.: D F BELL
 Tech. Officer: GSFC/P ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4361 **CORNELL UNIVERSITY** **7050**
 IMPLICATIONS OF EPISODIC SUBDUCTION
 04/09/1997 - 03/31/2000 FY99: \$35,000 Total: \$105,000
 Prin. Invest.: D L TURCOTTE
 Tech. Officer: GSFC/P G ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4376 **CORNELL UNIVERSITY** **7051**
 DEVELOPMENT OF AN EFFICIENT MID-INFRARED CROSS-DIS GRAPH
 05/08/1997 - 04/30/2000 FY99: \$0 Total: \$250,000
 Prin. Invest.: D R HOUCK
 Tech. Officer: GSFC/H THRONSON
 CASE Category: 11 - ASTRONOMY

NAG 5 4464 **CORNELL UNIVERSITY** **7052**
 ELECTRON AND ION ACCELERATION BY ALFVEN WAVE BREAK
 05/21/1997 - 05/14/2000 FY99: \$78,000 Total: \$225,000
 Prin. Invest.: D E SEYLER
 Tech. Officer: GSFC/M M MELLOTT
 CASE Category: 13 - PHYSICS

NAG 5 4502 **CORNELL UNIVERSITY** **7053**
 OPERATE THE SPACECRAFT PLANETARY IMAGING FACILITY
 05/06/1997 - 12/31/1999 FY99: \$37,000 Total: \$111,000
 Prin. Invest.: D VEVERKA
 Tech. Officer: GSFC/P ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4503 **CORNELL UNIVERSITY** **7054**
 SPIFI: AN IMAGING FABRY-PEROT FOR USE ON AST/RO
 05/06/1997 - 03/31/1999 FY99: \$25,000 Total: \$157,351
 Prin. Invest.: D J STACEY
 Tech. Officer: GSFC/H THRONSON
 CASE Category: 11 - ASTRONOMY

NAG 5 4504 **CORNELL UNIVERSITY** **7055**
 LABORATORY MEASUREMENTS OF CELESTIAL SOLIDS
 05/06/1997 - 12/31/1999 FY99: \$0 Total: \$144,000
 Prin. Invest.: D J SIEVERS
 Tech. Officer: GSFC/H THRONSON
 CASE Category: 11 - ASTRONOMY

NAG 5 4975 **CORNELL UNIVERSITY** **7056**
 TEMPLATE REACTIONS AND CHEMICAL EVOLUTION
 07/01/1997 - 07/31/1999 FY99: \$95,003 Total: \$176,318
 Prin. Invest.: D A USHER
 Tech. Officer: GSFC/M MEYER
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 5036 **CORNELL UNIVERSITY** **7057**
 AN EXPERIMENT TO STUDY SPORADIC ATOM LAYERS IN THE EARTH'S
 MESOSPHERE AND LOWER THERMOSPHERE
 04/25/1995 - 03/31/1999 FY99: \$0 Total: \$377,296
 Prin. Invest.: M C KELLEY
 Tech. Officer: GSFC/R H PLESS
 CASE Category: 13 - PHYSICS

NAG 5 5038 **CORNELL UNIVERSITY** **7058**
 A CO-INVESTIGATOR PROPOSAL FOR THE STUDY OF AURORAL TURBU-
 LENCE
 06/07/1995 - 01/31/2000 FY99: \$0 Total: \$126,965
 Prin. Invest.: M C KELLEY
 Tech. Officer: GSFC/R H PLESS
 CASE Category: 13 - PHYSICS

NAG 5 5045 **CORNELL UNIVERSITY** **7059**
 ARECIBO SUPPORT FOR STUDIES OF SPORADIC METALLIC LAYERS IN THE
 EARTH'S MESOSPHERE & LOWER THERMOSPHERE
 07/28/1995 - 08/31/1999 FY99: \$0 Total: \$111,249
 Prin. Invest.: C A TEPLY
 Tech. Officer: GSFC/R H PLESS
 CASE Category: 13 - PHYSICS

NAG 5 5079 **CORNELL UNIVERSITY** **7060**
 CLEFT ACCELERATED PLASMAS EXPERIMENT ROCKET (CAPER FUNDING
 FOR THE FIRST YEAR OF THE GRANT
 05/15/1996 - 05/31/2000 FY99: \$0 Total: \$463,581
 Prin. Invest.: P KINTNER
 Tech. Officer: GSFC/W B JOHNSON
 CASE Category: 13 - PHYSICS

NAG 5 5080 **CORNELL UNIVERSITY** **7061**
 LANGMUIR TURBULENCE ROCKET
 06/12/1996 - 04/30/2000 FY99: \$0 Total: \$315,138
 Prin. Invest.: M C KELLEY
 Tech. Officer: GSFC/L W GURKIN
 CASE Category: 13 - PHYSICS

NAG 5 5134 **CORNELL UNIVERSITY** **7062**
 CO-INVESTIGATOR PROPOSAL FOR ENSTROPY- FILAMENTATION OF
 AWARD CURRENTS
 04/14/1997 - 03/31/2000 FY99: \$50,887 Total: \$201,591
 Prin. Invest.: P KINTNER
 Tech. Officer: GSFC/W JOHNSON
 CASE Category: 13 - PHYSICS

NAG 5 5233 **CORNELL UNIVERSITY** **7063**
 SIERRA PI DR. PAUL KINTNER
 02/10/1999 - 02/09/2002 FY99: \$191,148 Total: \$191,148
 Prin. Invest.: P M KINTNER
 Tech. Officer: MSFC/W B JOHNSON
 CASE Category: 13 - PHYSICS

NAG 5 5244 **CORNELL UNIVERSITY** **7064**
 FIRST YEAR OF A THREE GRANT NAG5-5244 PI DR. MICHAEL C. KELLEY
 03/29/1999 - 03/28/2002 FY99: \$44,438 Total: \$44,438
 Prin. Invest.: M C KELLEY
 Tech. Officer: GSFC/W B JOHNSON
 CASE Category: 13 - PHYSICS

NAG 5 6111 **CORNELL UNIVERSITY** **7065**
 CLIMATE, EROSION, AND TECTONICS IN THE ANDES AND O
 07/28/1997 - 03/31/1999 FY99: \$0 Total: \$112,500
Prin. Invest.: B ISACKS
Tech. Officer: GSFC/M BATLUCK
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6273 **CORNELL UNIVERSITY** **7066**
 BIOLOGICAL AND PHYSICAL CONTROLS OF PRIMARY PRODUC SUBSE-
 QUENT FATE IN THE GEORGES BANK REGION: AN IN
 08/29/1997 - 10/31/1999 FY99: \$61,566 Total: \$153,268
Prin. Invest.: G CHARLES
Tech. Officer: GSFC/J JODER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6281 **CORNELL UNIVERSITY** **7067**
 COMPLEXITY AND NATURAL HAZARDS
 09/18/1997 - 12/31/1998 FY99: \$0 Total: \$69,683
Prin. Invest.: D L TURCOTTE
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6311 **CORNELL UNIVERSITY** **7068**
 MAGNETOHYDRODYNAMICS AND PLASMA PHENOMENA IN PROTO STEL-
 LAR SYSTEMS
 10/06/1997 - 04/30/2000 FY99: \$25,000 Total: \$75,000
Prin. Invest.: P V LOVELACE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6437 **CORNELL UNIVERSITY** **7069**
 PERCEPTION AND TRANSDUCTION OF THE GRAVITATIONAL S TIMULUS
 10/28/1997 - 09/30/1999 FY99: \$50,000 Total: \$220,007
Prin. Invest.: R WAYNE
Tech. Officer: GSFC/M P AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6495 **CORNELL UNIVERSITY** **7070**
 DEVELOPMENT OF 256X256 SLSB AND SLSAS BIBIB DETECTORS FOR
 SOFIA
 10/31/1997 - 12/31/1999 FY99: \$280,000 Total: \$560,000
Prin. Invest.: D L HERTER
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 6783 **CORNELL UNIVERSITY** **7071**
 RADAR SYNTHESIS IMAGING OF SMALL BODIES
 01/20/1998 - 12/31/1999 FY99: \$51,000 Total: \$102,000
Prin. Invest.: D B CAMPBELL
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6893 **CORNELL UNIVERSITY** **7072**
 A HIGH-ENERGY PULSAR SURVEY
 01/30/1998 - 01/31/2000 FY99: \$0 Total: \$43,600
Prin. Invest.: Z ARZOUMANIAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6987 **CORNELL UNIVERSITY** **7073**
 NANO-ELECTRIC FIELD TECHNOLOGY (NEFTY)
 02/24/1998 - 03/31/2000 FY99: \$44,373 Total: \$88,324
Prin. Invest.: P M KINTNER
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7264 **CORNELL UNIVERSITY** **7074**
 ROTATING AND BINARY NEUTRON STARS IN GENERAL RELATIVITY - ATP
 04/29/1998 - 04/30/2000 FY99: \$56,500 Total: \$111,500
Prin. Invest.: S TUEKOLSKY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7373 **CORNELL UNIVERSITY** **7075**
 OBSERVATIONS OF LARGE-SCALE JOVIAN THERMAL WAVES
 05/12/1998 - 05/14/2000 FY99: \$49,700 Total: \$111,100
Prin. Invest.: J HARRINGTON
Tech. Officer: GSFC/L D DEMING
CASE Category: 11 - ASTRONOMY

NAG 5 7497 **CORNELL UNIVERSITY** **7076**
 UNDERSTANDING METEOROLOGICAL CONTROLS OF GLACIER MASS BAL-
 ANCE
 06/29/1998 - 06/30/2001 FY99: \$0 Total: \$270,000
Prin. Invest.: K H COOK
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7508 **CORNELL UNIVERSITY** **7077**
 ELASTIC PROPERTIES OF FILMS OF WATER AND NOBLE GASES CON-
 DENSED AT LOW TEMPERATURES
 06/29/1998 - 05/31/2001 FY99: \$71,250 Total: \$90,000
Prin. Invest.: R O POHL
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7864 **CORNELL UNIVERSITY** **7078**
 JUPITER CLOUD STRUCTURE AND DYNAMICS STUDIES
 01/12/1999 - 12/31/1999 FY99: \$90,000 Total: \$90,000
Prin. Invest.: D J GIERASCH
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7892 **CORNELL UNIVERSITY** **7079**
 SPECTROSCOPY AND METEORITE LINKAGE OF THE K-TYPE ASTEROIDS
 12/04/1998 - 12/31/1999 FY99: \$21,000 Total: \$21,000
Prin. Invest.: D E CLARK
Tech. Officer: GSFC/J GRANT
CASE Category: 11 - ASTRONOMY

NAG 5 7919 **CORNELL UNIVERSITY** **7080**
 SPATIALLY RESOLVED K-BAND GRISM SPECTRA OF URANUS AND NEP-
 TUNE: AEROSOL AND METHANE VERTICAL DISTRIB
 12/10/1998 - 12/31/2000 FY99: \$32,600 Total: \$32,600
Prin. Invest.: D BANFIELD
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 7941 **CORNELL UNIVERSITY** **7081**
 XTE PROPOSAL (30182) SIMULTANEOUS X-RAY/INFRARED/RADIO
 OBSERVATIONS OF GRS1915+105
 02/05/1999 - 12/14/1999 FY99: \$6,862 Total: \$6,862
Prin. Invest.: S S EIKENBERRY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7965 **CORNELL UNIVERSITY** **7082**
 JOVIAN PLANETARY WAVES: BASIC ATMOSPHERIC PROPERTIES FROM
 MULTIPLE PRE-GALILEO DATASETS
 12/15/1998 - 12/31/1999 FY99: \$73,978 Total: \$73,978
Prin. Invest.: D HARRINGTON
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7982 **CORNELL UNIVERSITY** **7083**
 THE HIGH ENERGY EMISSION MECHANISM IN ROTATION-POWERED PULSARS ADP98
 01/19/1999 - 01/14/2000 FY99: \$23,000 Total: \$23,000
Prin. Invest.: S S EIKENBERRY
Tech. Officer: GSFC/D K WEST
CASE Category: 21 - MATHEMATICS

NAG 5 8010 **CORNELL UNIVERSITY** **7084**
 DIGITAL MAPPING OF JOVIAN CLOUD MOTIONS
 01/13/1999 - 01/14/2000 FY99: \$25,000 Total: \$25,000
Prin. Invest.: P HELFENSTEIN
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8067 **CORNELL UNIVERSITY** **7085**
 COMET NUCLEUS TOUR - CONTOUR
 01/21/1999 - 01/31/2000 FY99: \$574,000 Total: \$574,000
Prin. Invest.: D VEVERKA
Tech. Officer: GSFC/A CARRO
CASE Category: 11 - ASTRONOMY

NAG 5 8070 **CORNELL UNIVERSITY** **7086**
 WATER DETECTION ON ASTEROIDS: ARE THE VISIBLE REBANDS REALLY A
 GOOD PROXY?
 01/29/1999 - 02/28/2000 FY99: \$46,032 Total: \$46,032
Prin. Invest.: D S HOWELL
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 8076 **CORNELL UNIVERSITY** **7087**
 "MAGNETOMETER-BASED ORBIT AND ATTITUDE DETERMINATION WITH
 SIMULTANEOUS CORRECTION OF THE EARTH'S M
 01/22/1999 - 12/31/1999 FY99: \$49,620 Total: \$49,620
Prin. Invest.: M PSIAKI
Tech. Officer: GSFC/R R HARMAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8188 **CORNELL UNIVERSITY** **7088**
 UNDERGRADUATE COURSE ON SATELLITE REMOTE SENSING IN BIOLOGICAL
 OCEANOGRAPHY
 03/04/1999 - 03/31/2000 FY99: \$68,982 Total: \$68,982
Prin. Invest.: B MONGER
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8282 **CORNELL UNIVERSITY** **7089**
 SEPARATION & ANALYSIS OF TES ATMOSPHERIC TEMPERATURES AS
 COMPONENT FIELDS: ZONAL MEANS, THERMAL
 02/19/1999 - 02/29/2000 FY99: \$68,800 Total: \$68,800
Prin. Invest.: D J BANDFIELD
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8356 **CORNELL UNIVERSITY** **7090**
 ASTROPHYSICS OF FAST MOVING NEUTRON STARS (ATP98)
 03/11/1999 - 03/14/2000 FY99: \$109,000 Total: \$109,000
Prin. Invest.: D F CHERNOFF
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8484 **CORNELL UNIVERSITY** **7091**
 MATTER IN STRONG MAGNETIC FIELDS AND THERMAL RADIATION FROM
 ISOLATED NEUTRON STARS (ATP - 98)
 05/11/1999 - 05/14/2000 FY99: \$65,000 Total: \$65,000
Prin. Invest.: D LAI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8673 **CORNELL UNIVERSITY** **7092**
 A SCANNING DOUBLE HALF-WAVE INTERFEROMETER FOR SOFIA
 07/09/1999 - 07/14/2000 FY99: \$153,895 Total: \$153,895
Prin. Invest.: G J STACEY
Tech. Officer: GSFC/G MUCKLOW
CASE Category: 11 - ASTRONOMY

NAG 5 8775 **CORNELL UNIVERSITY** **7093**
 ENGINEERING CONTROL OF BIOMOLECULAR MOTOR POWERED
 NANO-CHEMICAL DEVICE
 09/01/1999 - 08/31/2000 FY99: \$35,768 Total: \$35,768
Prin. Invest.: C MONTEMAGNO
Tech. Officer: GSFC/R CROUCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8788 **CORNELL UNIVERSITY** **7094**
 GPS-BASED APPROACHES TO ORBIT DETERMINATION AND DIFFERENTIAL
 POSITIONING OF THE SPACE SOLAR POWER
 08/31/1999 - 05/31/2000 FY99: \$22,986 Total: \$22,986
Prin. Invest.: M PSIAKI
Tech. Officer: GSFC/S KANT
CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1357 **CORNELL UNIVERSITY** **7095**
 R/S "DEFECTS, GROWTH, & ELASTIC PROPERTIES OF PROTEIN CRYSTALS"
 05/15/1997 - 11/29/2000 FY99: \$123,000 Total: \$312,000
Prin. Invest.: R THORNE
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1372 **CORNELL UNIVERSITY** **7096**
 R/S ENHANCEMENT OF CELL FUNCTION IN CULTURE BY CONTROLLED
 AGGREGATION UNDER MICROGRAVITY CONDITIONS
 06/18/1997 - 11/30/2000 FY99: \$147,000 Total: \$360,000
Prin. Invest.: W M SALTZMAN
Tech. Officer: JSC/W M SATTMAN
CASE Category: 13 - PHYSICS

NAG 8 1438 **CORNELL UNIVERSITY** **7097**
 STUDIES OF FREE RADICALS
 02/17/1998 - 01/31/2001 FY99: \$74,000 Total: \$161,000
Prin. Invest.: J M PARPIA
Tech. Officer: MSFC/J W POE
CASE Category: 11 - ASTRONOMY

NAG 8 1445 **CORNELL UNIVERSITY** **7098**
 STUDIES OF FREE RADICALS
 02/16/1998 - 01/31/2003 FY99: \$120,000 Total: \$316,000
Prin. Invest.: D M LEE
Tech. Officer: MSFC/J W POE
CASE Category: 13 - PHYSICS

NAG 8 1518 **CORNELL UNIVERSITY** **7099**
 MESOSCALE LANDSURFACE HEAT FLUX VARIABILITY OVER THE SOUTH-
 ERN GCIP AREA FROM ATMOSPHERIC SOUNDINGS
 06/01/1998 - 05/31/2001 FY99: \$115,000 Total: \$230,000
Prin. Invest.: W BRUTSAERT
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1574 **CORNELL UNIVERSITY** **7100**
 IMPURITY EFFECTS IN MACROMOLECULAR CRYSTAL GROWTH
 01/05/1999 - 11/30/2002 FY99: \$82,000 Total: \$82,000
Prin. Invest.: R THORNE
Tech. Officer: MSFC/B GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 1118 **CORNELL UNIVERSITY** **7101**
 DEVELOP AND EVALU OF SINGLECELL OIL FOR BIO LIFE SUPPORT SYS
 06/03/1999 - 07/31/2000 FY99: \$0 Total: \$0
Prin. Invest.: C J GREENWALT
Tech. Officer: JSC/C T BOURLAND
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 2551 **CORNELL UNIVERSITY** **7102**
 NAGW-2551/AN INFRARED CAMERA/SPECTROGRAPH FOR THE PALOMAR
 OBSERVATORY
 06/11/1991 - 06/30/1998 FY99: -\$2,512 Total: \$608,488
Prin. Invest.: J R HOUCK
Tech. Officer: HQ/M D BICAY
CASE Category: 11 - ASTRONOMY

NAGW 4986 **CORNELL UNIVERSITY** **7103**
 THE WAVELENGTH DEPENDENCE OF LUNAR PHOTOMETRIC PRO PERTIES
 02/27/1996 - 12/31/1998 FY99: \$0 Total: \$90,000
Prin. Invest.: P HELFENSTEIN
Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 5 31723 **CORNELL UNIVERSITY** **7104**
 EOS INVESTIGATION "GLOBAL HYDROLOGIC PROCESSES AND CLIMATE"
 12/10/1991 - 05/03/1999 FY99: \$0 Total: \$683,250
Prin. Invest.: W BRUTSAET
Tech. Officer: GSFC/W LAU
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NASW 99008 **CORNELL UNIVERSITY** **7105**
 DEVELOPMENT MID-INFARED CROSS DISPERSEL ECHELLE SPECTRO-
 GRAPH W/NO MOVING PARTS KECK OBS
 05/24/1999 - 11/23/1999 FY99: \$78,812 Total: \$78,812
Prin. Invest.: J R HOUCK
Tech. Officer: HQ/J T BERGSTALH
CASE Category: 11 - ASTRONOMY

NCC 3 468 **CORNELL UNIVERSITY** **7106**
 MICROGRAVITY SEGREGATION IN BINARY MIXTURES OF INE LASTIC
 SPHERES DRIVEN BY VELOCITY FLUCTUATION GRA
 04/22/1996 - 04/21/2000 FY99: \$194,735 Total: \$703,099
Prin. Invest.: J T JENKINS, M LOUGE
Tech. Officer: GRC/R HAKIMZADEH, GRC/E NELSON
CASE Category: 46 - MECHANICAL ENGR

NCC 5 84 **CORNELL UNIVERSITY** **7107**
 OUTER PLANET ATMOSPHERIC STRUCTURE.
 02/22/1995 - 02/28/1998 FY99: \$0 Total: \$281,933
Prin. Invest.: P J GIERASCH
Tech. Officer: GSFC/F M FLASAR
CASE Category: 11 - ASTRONOMY

NCC 5 132 **CORNELL UNIVERSITY** **7108**
 RADIATIVE STUDIES OF PLANETARY ATMOSPHERES
 02/14/1996 - 02/14/1999 FY99: \$35,000 Total: \$105,000
Prin. Invest.: P J GIERASCH
Tech. Officer: GSFC/M FLASAR
CASE Category: 11 - ASTRONOMY

NCC 5 298 **CORNELL UNIVERSITY** **7109**
 CARBON AND NUTRIENT STOCKS, SOIL WATER DYNAMICS, A ND TRACE
 GAS FLUXES IN ABANDONED PASTURES AND AGR
 06/16/1998 - 12/31/1999 FY99: \$214,865 Total: \$403,943
Prin. Invest.: E FERNANDES
Tech. Officer: GSFC/D DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 322 **CORNELL UNIVERSITY** **7110**
 OUTER PLANETS ATMOSPHERIC STRUCTURE
 03/10/1998 - 02/29/2000 FY99: \$106,917 Total: \$207,552
Prin. Invest.: P J GIERASCH
Tech. Officer: GSFC/F M FLASAR
CASE Category: 11 - ASTRONOMY

NCC 5 375 **CORNELL UNIVERSITY** **7111**
 RADIATIVE STUDIES OF PLANETARY ATMOSPHERES
 01/19/1999 - 02/14/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: B J CONRATH
Tech. Officer: GSFC/F M FLASAR
CASE Category: 11 - ASTRONOMY

NCC 9 86 **CORNELL UNIVERSITY** **7112**
 TRANSHAB HYPERVELOCITY IMPACT TESTS
 06/01/1999 - 05/31/2000 FY99: \$14,975 Total: \$14,975
Prin. Invest.: L D ALBRIGHT
Tech. Officer: JSC/D J BARTA
CASE Category: 55 - AGRICULTURE

NCC 9 89 **CORNELL UNIVERSITY** **7113**
 COORDINATE ANALYSIS AND CALIBRATION STUDIES
 07/20/1999 - 07/19/2002 FY99: \$10,000 Total: \$10,000
Prin. Invest.: R V MORRIS, J F BELL
Tech. Officer: JSC/R V MORRIS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51374 **CORNELL UNIVERSITY** **7114**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 05/30/1995 - 06/30/1998 FY99: -\$12,044 Total: \$31,956
Prin. Invest.: K H COOK
Tech. Officer: HQ/A NOVOTING
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 3 52318 **CORNELL UNIVERSITY** **7115**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 08/06/1996 - 06/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: D STEEN
Tech. Officer: GRC/D MONTEGANI/Q
CASE Category: 43 - CHEMICAL ENGR

NGT 5 51 **CORNELL UNIVERSITY** **7116**
 SYNOPTIC-TO SEASONAL-SCALE INFLUENCES ON MID-LATIT RY ABOUT
 THE WEATHER
 06/23/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: B L ISACKS
Tech. Officer: GSFC/M S BURRELL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 54 **CORNELL UNIVERSITY** **7117**
 LARGE-SCALE SOIL MOISTURE AND ATMOSPHERIC WATER BU N RECYCL-
 ING IN THE SOUTHERN GREAT PLAINS BY INTEG
 06/23/1997 - 03/31/1998 FY99: -\$21,600 Total: \$400
Prin. Invest.: D LUCAS
Tech. Officer: GSFC/S D SCHUBERT
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30038 **CORNELL UNIVERSITY** **7118**
 THE INTERNAL NITROGEN CYCLE OF TEMPERATURE FORESTS MECH-
 ANISMS IN THE ABSENCE OF HUMAN DISTURBANCE
 10/17/1996 - 08/31/2000 FY99: \$0 Total: \$66,000
Prin. Invest.: L O HEDIN
Tech. Officer: GSFC/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30126 **CORNELL UNIVERSITY** **7119**
 INTERFEROMETRIC SAR MEASUREMENTS OF SEISMIC & INTE R-SEISMIC
 STRAIN NEAR A MAJOR SEISMIC GAP INPERU
 10/10/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: B ISACKS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30210 **CORNELL UNIVERSITY** **7120**
 HAVE WE GROSSLY UNDERESTIMATED METHANE PRODUCTION & CON-
 SUMPTION? APPLICATION OF A NEW STABLE ISOTOPE
 08/20/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: L O HEDIN
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40019 **CORNELL UNIVERSITY** **7121**
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 01/06/1997 - 01/31/2000 FY99: \$475,000 Total: \$1,330,000
Prin. Invest.: Y TERZIAN
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50027 **CORNELL UNIVERSITY** **7122**
 PRE-AGGREGATION OF CELLS UNDER MICROGRAVITY CONDIT PLANTA-
 TION
 07/15/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: M SALTZMAN
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50036 **CORNELL UNIVERSITY** **7123**
 MICROGRAVITY-INDICED NERVOUS TISSUE FORMULATION US
 07/14/1997 - 08/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: S SALTZMAN
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50116 **CORNELL UNIVERSITY** **7124**
 GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: C
 09/04/1997 - 08/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: P NICHOLSON
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50218 **CORNELL UNIVERSITY** **7125**
 VOLUMETRIC ASSESSMENT OF FACTORS GOVERNING SEASONA L AND
 INTERANNUAL FLUXES OF PHYTOPLANKTON FRO
 09/17/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C H GREENE, FISHER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50270 **CORNELL UNIVERSITY** **7126**
 PRE-AGGREGATION OF CELLS UNDER MICROGRAVITY CONDIT IONS FOL-
 LOWED BY TRANSPLANTATION INTO THE BRAIN
 07/23/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: M SALTZMAN
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90070 **CORNELL UNIVERSITY** **7127**
 USAR FOR BRYAN VANDROVEC AND MELANIE DIEZ
 05/19/1997 - 08/14/1998 FY99: -\$2,000 Total: \$38,000
Prin. Invest.: K HOVER
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 22 - COMPUTER SCIENCE

NGT 9 16 **CORNELL UNIVERSITY** **7128**
 SELECTION & CHARAC OF VEG CROP CULTIVARS ...
 05/16/1997 - 09/30/2000 FY99: \$5,000 Total: \$49,000
Prin. Invest.: R W LANGHANS
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 17 CORNELL UNIVERSITY 7129
 DEV & EVAL SINGLE CELL OIL PRODUCT ...
 05/16/1997 - 07/31/1999 FY99: \$0 Total: \$43,306
Prin. Invest.: J B HUNTER
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 55 - AGRICULTURE

NGT10 52600 CORNELL UNIVERSITY 7130
 A GRADUATE STUDENT RESEARCHERS PROGRAM
 06/20/1995 - 12/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: L ALBRIGHT
Tech. Officer: KSC/J SAGER
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT10 52607 CORNELL UNIVERSITY 7131
 GRADUATE STUDENT RESEARCHERS PROGRAM
 04/18/1996 - 06/30/2000 FY99: \$18,330 Total: \$84,330
Prin. Invest.: C F JOHNSON
Tech. Officer: KSC/J SAGER
CASE Category: 55 - AGRICULTURE

NGT10 52623 CORNELL UNIVERSITY 7132
 GRADUATE STUDENT RESEARCHER'S PROGRAM
 08/23/1999 - 08/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: L ALBRIGHT
Tech. Officer: KSC/R WHEELER
CASE Category: 55 - AGRICULTURE

NAG 8 1263 HARTWICK COLLEGE 7133
 STUDY JOVE
 01/22/1997 - 08/31/1999 FY99: \$14,000 Total: \$82,000
Prin. Invest.: P T BUCKLEY, A F MOORE
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7503 HOFSTRA UNIVERSITY 7134
 OCEAN SURFACE STRESS MEASUREMENTS USING SATELLITE SCAT-
 TEROMETERS
 06/09/1998 - 05/31/2000 FY99: \$130,999 Total: \$256,223
Prin. Invest.: D E WEISSMAN
Tech. Officer: GSFC/E J LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6606 HUNTER COLLEGE OF THE CITY UNIV OF NEW YORK 7135
 QUANTITATION OF BONE GROWTH RATE VARIABILITY IN RATS EXPOSED
 TOMICRO- (NEAR ZERO G) AND MACROGRAVI
 12/16/1997 - 02/28/1999 FY99: -\$1,503 Total: \$50,497
Prin. Invest.: T G BROMAGE
Tech. Officer: GSFC/M SHEPANEK
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1259 HUNTER COLLEGE OF THE CITY UNIV OF NEW YORK 7136
 JOVE RESEARCH
 01/17/1997 - 08/31/2000 FY99: \$0 Total: \$208,000
Prin. Invest.: L COHEN, S GREENBAUM, P COMBS
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1273 IONA COLLEGE 7137
 RESEARCH FOR JOVE
 01/21/1997 - 08/31/1999 FY99: \$0 Total: \$53,000
Prin. Invest.: R NOVAK
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 11 - ASTRONOMY

NGT 5 90009 LA GUARDIA COMMUNITY COLLEGE 7138
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 01/06/1997 - 08/14/1998 FY99: -\$370 Total: \$95,630
Prin. Invest.: R MCLEOD
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 90079 LA GUARDIA COMMUNITY COLLEGE 7139
 USAR (B) BERRY-\$6600 (PLUS \$5400 IN CARRYOVER); FO RTUNE, MATOS,
 MERCER, ORMAZA, PROUT AND SAVERINO
 10/17/1997 - 08/31/1999 FY99: \$0 Total: \$74,850
Prin. Invest.: R MCLEOD
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 205 MEDGAR EVERS COLLEGE 7140
 MEDGAR EVERS COLLEGE OCEAN AND ENVIRONMENTAL SCIEN
 06/11/1997 - 05/31/1999 FY99: \$99,993 Total: \$399,986
Prin. Invest.: L P JOHNSON
Tech. Officer: GSFC/A A LACIS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 2 946 MT SINAI SCH OF MED OF THE CUNY 7141
 ANATOMICAL STUDIES OF CENTRAL VESTIBULAR ADAPTATIO N
 01/10/1995 - 11/30/1999 FY99: \$117,195 Total: \$577,079
Prin. Invest.: G R HOLSTEIN, G R HOLSTEIN
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1191 MT SINAI SCH OF MED OF THE CUNY 7142
 NITRIC OXIDE SIGNALING IN HYPERGRAVITY IN DUCED NE URONAL PLAS-
 TICITY
 03/23/1998 - 11/30/1999 FY99: \$208,851 Total: \$229,921
Prin. Invest.: G R HOLSTEIN, G P MARTINELLI
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 6276 MT SINAI SCH OF MED OF THE CUNY 7143
 *VESTIBULAR INFLUENCES ON AUTONOMIC CARDIOVASCULAR
 09/08/1997 - 09/30/2000 FY99: \$325,000 Total: \$645,004
Prin. Invest.: H KAUFMANN
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 816 MT SINAI SCH OF MED OF THE CUNY 7144
 THYROID FOLLICLE FORMATION IN MICROGRAVITY
 08/11/1995 - 09/17/1999 FY99: \$0 Total: \$605,307
Prin. Invest.: A MARTIN
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 1097 MT SINAI SCH OF MED OF THE CUNY 7145
 ARTCT AND MECH FUNDTION W/RECOVERY FR DISUSE OSTEOPOROSIS
 04/01/1999 - 03/31/2000 FY99: \$153,098 Total: \$153,098
 Prin. Invest.: M SCHAFFLER
 Tech. Officer: JSC/C LLOYD
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 9 19441 MT SINAI SCH OF MED OF THE CUNY 7146
 SPATIAL ORIENTATION OF VESTIBULO-OCULAR REFLEX AND VELOCITY
 STORAGE
 03/01/1996 - 07/31/2000 FY99: \$315,513 Total: \$1,711,523
 Prin. Invest.: D COHEN, M.D., M DAI, M.D.
 Tech. Officer: JSC/A M LEE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 951 NEW YORK UNIVERSITY 7147
 EFFECTS OF GRAVITY ON POSTNATL MOTOR DEVELOPMENT
 12/22/1994 - 11/30/1999 FY99: \$390,300 Total: \$878,767
 Prin. Invest.: K D WALTON
 Tech. Officer: ARC/W E HINDS
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1322 NEW YORK UNIVERSITY 7148
 SLENDER VORTEX FILAMENT WITH SLOWLY VARYING CORE S TRUCTURE
 04/29/1999 - 09/30/1999 FY99: \$21,975 Total: \$21,975
 Prin. Invest.: L TING
 Tech. Officer: ARC/C TUNG
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 7583 NEW YORK UNIVERSITY 7149
 JOINT CENTER FOR COMPUTATIONAL MODELING (JCCM)
 08/04/1998 - 12/31/1999 FY99: \$0 Total: \$100,000
 Prin. Invest.: M BERGER
 Tech. Officer: GSFC/D S SPICER
 CASE Category: 21 - MATHEMATICS

NAG 5 8475 NEW YORK UNIVERSITY 7150
 MODELING SOUTH PACIFIC ICE-OCEAN INTERACTIONS IN THE GLOBAL
 CLIMATE SYSTEM
 04/26/1999 - 04/30/2000 FY99: \$45,065 Total: \$45,065
 Prin. Invest.: D M HOLLAND
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 1024 NEW YORK UNIVERSITY 7151
 CANCER RISK MECHANISM FOLLOWING REPEATED EXPOSURE TO
 HIGH LET RADIATION
 06/04/1998 - 06/04/2000 FY99: \$200,000 Total: \$318,000
 Prin. Invest.: F J BURNS, NONE
 Tech. Officer: JSC/F A CUCINOTTA
 CASE Category: 56 - MEDICL

NCC 5 125 NEW YORK UNIVERSITY 7152
 EARTH SYSTEMS SCIENCE RESEARCH
 10/26/1995 - 09/30/1999 FY99: \$0 Total: \$89,999
 Prin. Invest.: M HOFFERT
 Tech. Officer: GSFC/C ROSENZWEIG
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 8 55 NIAGARA UNIVERSITY 7153
 LIGHTNING IMAGING SENSOR STUDY
 08/17/1994 - 05/16/1999 FY99: \$0 Total: \$188,271
 Prin. Invest.: W BOECK
 Tech. Officer: MSFC/R BLAKESLEE, MSFC/S J GOODMAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 8 182 NIAGARA UNIVERSITY 7154
 ALGORITHM DEVELOPMENT AND SCIENCES ANALYSIS OF STANDARD
 DATA PRODUCTS FROM LIGHTNING INSTR. SPACE
 04/26/1999 - 04/25/2002 FY99: \$32,958 Total: \$32,958
 Prin. Invest.: W BOECK
 Tech. Officer: MSFC/R BLAKESLEE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1370 POLYTECHNIC UNIVERSITY - BROOKLYN,NY 7155
 R/S "DIFFUSION, VISCOSITY AND CRYSTAL GROWTH OF PROTEINS IN
 MICROGRAVITY"
 05/28/1997 - 11/30/2000 FY99: \$124,000 Total: \$236,000
 Prin. Invest.: A MYERSON
 Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1455 POLYTECHNIC UNIVERSITY - BROOKLYN,NY 7156
 R/S THERMODYNAMIC & SPECTROSCOPIC STUDIES OF SECONDARY
 NUCLEATION IN MICROGRAVITY
 02/01/1998 - 01/31/2000 FY99: \$76,667 Total: \$126,667
 Prin. Invest.: A S MEYERSON
 Tech. Officer: MSFC/C TALLEY
 CASE Category: 43 - CHEMICAL ENGR

NAG 8 1561 POLYTECHNIC UNIVERSITY - BROOKLYN,NY 7157
 FURTHER VERIFICATION OF THE RESIDUAL APPROACH
 09/10/1998 - 09/15/1999 FY99: \$0 Total: \$20,000
 Prin. Invest.: F B LIN
 Tech. Officer: MSFC/M L TINKER, MSFC/F M BUGG
 CASE Category: 49 - ENGINEERING, OTHER

NGT 8 52879 POLYTECHNIC UNIVERSITY - BROOKLYN,NY 7158
 GRADUATE STUDENT RESEARCH PROGRAM DEVELOPMENT OF HEALTH
 MONITORING TECHNIQUES FOR AEROSPACE
 09/08/1999 - 08/31/2002 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: F LIN
 Tech. Officer: MSFC/J DOWDY
 CASE Category: 44 - CIVIL ENGR

NAG 1 1939 RENSSELAER POLYTECHNIC INSTITUTE 7159
 THE DESIGN AND SYNTHESIS OF EPOXY MATRIX COMPOSITES CRUABLE
 BY ELECTRON BEAM
 06/02/1997 - 05/31/2000 FY99: \$60,001 Total: \$160,254
 Prin. Invest.: J V CRIVELLO
 Tech. Officer: LARC/J W CONNELL, LARC/N J JOHNSTON
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2075 RENSSELAER POLYTECHNIC INSTITUTE 7160
 ASSESSMENT STUDY OF THE STATE OF THE ART IN ADAP- TIVE CONTROL
 & ITS APPLIC'S TO AIRCRAFT CONTROL
 06/24/1998 - 10/31/1998 FY99: -\$10 Total: \$29,990
 Prin. Invest.: H KAUFMAN
 Tech. Officer: LARC/S M JOSHI
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2089 RENSSELAER POLYTECHNIC INSTITUTE 7161
 EVOLUTION IN DECENTRALIZED EMERGENT COMPUTATION MY 1/2
 07/08/1998 - 08/31/2000 FY99: \$136,529 Total: \$161,529
Prin. Invest.: P HAJELA, K E JANSEN
Tech. Officer: LARC/J SOBIESKI, LARC/J R ROGERS
CASE Category: 41 - AERONAUTICAL ENGR-

NAG 3 1696 RENSSELAER POLYTECHNIC INSTITUTE 7162
 MINORITY ENGINEERING PROGRAM
 01/18/1995 - 12/01/1999 FY99: \$25,000 Total: \$230,000
Prin. Invest.: M D SMITH
Tech. Officer: GRC/S MERRITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 1834 RENSSELAER POLYTECHNIC INSTITUTE 7163
 A STUDY OF THE CONSTRAINED VAPOR BUBBL THROMOSYPHON
 04/22/1996 - 04/21/2000 FY99: \$175,000 Total: \$647,520
Prin. Invest.: P C WAYNER
Tech. Officer: GRC/J C DUH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1856 RENSSELAER POLYTECHNIC INSTITUTE 7164
 STUDIES OF CYCLIC AND LINER CARBOSILANES AS SINGLE -SOURCE SIC
 PRECURSORS
 05/03/1996 - 05/31/1999 FY99: \$0 Total: \$105,000
Prin. Invest.: L V IERRANTE
Tech. Officer: GRC/D LARKIN
CASE Category: 12 - CHEMISTRY

NAG 3 2062 RENSSELAER POLYTECHNIC INSTITUTE 7165
 MICROGRAVITY INSTITUTE FOR TEACHERS AT RENSSELAER POLY-
 TECHNIC INSTITUTE
 07/15/1997 - 09/30/1997 FY99: -\$5,231 Total: \$24,769
Prin. Invest.: M B KOSS
Tech. Officer: GRC/T D RODGERS, GRC/D C MALARIK
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 3339 RENSSELAER POLYTECHNIC INSTITUTE 7166
 THE ORIGIN AND EVOLUTION OF DUST IN INTERSTELLAR AND CIRCUMS-
 TELLAR ENVIRONMENTS
 08/13/1996 - 08/31/1998 FY99: \$0 Total: \$128,587
Prin. Invest.: D C WHITTET
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3376 RENSSELAER POLYTECHNIC INSTITUTE 7167
 ULTRAVIOLET INTERSTELLAR POLARIZATION & NEW INSIGHT S INTO
 INTERSTELLAR DUST GRAINS
 09/10/1996 - 09/14/2000 FY99: \$0 Total: \$31,642
Prin. Invest.: D C WHITTET
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3725 RENSSELAER POLYTECHNIC INSTITUTE 7168
 METEORITE SPECTROSCOPY AND CHARACTERIZATION OF AST MATERI-
 ALS
 02/12/1997 - 02/14/2000 FY99: \$35,000 Total: \$131,000
Prin. Invest.: M J GAFFEY, NONE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4557 RENSSELAER POLYTECHNIC INSTITUTE 7169
 A LABORATORY INVESTIGATION OF PHOTOCHEMICAL PROCES
 06/23/1997 - 10/31/1999 FY99: \$128,000 Total: \$406,120
Prin. Invest.: D P FERRIS
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 7410 RENSSELAER POLYTECHNIC INSTITUTE 7170
 ISO OBSERVATIONS OF INTERSTELLAR DUST ABSORPTION
 06/08/1998 - 02/28/1999 FY99: \$0 Total: \$55,000
Prin. Invest.: D WHITTET
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7598 RENSSELAER POLYTECHNIC INSTITUTE 7171
 ORIGIN OF LIFE: INTERSTELLAR MOLECULES TO INTRONS
 07/15/1998 - 12/31/1999 FY99: \$474,746 Total: \$949,492
Prin. Invest.: D P FERRIS
Tech. Officer: GSFC/M A MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 7884 RENSSELAER POLYTECHNIC INSTITUTE 7172
 THE NATURE AND EVOLUTION OF INTERSTELLAR & CIRCUMSTELLAR ICES
 & ORGANIC MATTER
 12/01/1998 - 12/31/1999 FY99: \$15,441 Total: \$15,441
Prin. Invest.: D C WHITTET
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 8 1265 RENSSELAER POLYTECHNIC INSTITUTE 7173
 DEFECT GENERATION IN CVT GROWN HG1-XCDXTE EPITAXIAL LAYERS
 UNDER NORMAL AND REDUCED GRAVITY
 05/30/1996 - 05/29/1998 FY99: \$0 Total: \$300,000
Prin. Invest.: H WIEDEMEIER
Tech. Officer: MSFC/C R TALLEY, MSFC/R W ALLEN
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 8 1290 RENSSELAER POLYTECHNIC INSTITUTE 7174
 "INVESTIGATIONS OF FREE STREAM FLOW TECHNOLOGIES"
 12/18/1996 - 12/31/1999 FY99: \$99,839 Total: \$345,719
Prin. Invest.: L N MYRABO
Tech. Officer: MSFC/G A ROBERSTON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1468 RENSSELAER POLYTECHNIC INSTITUTE 7175
 R/S EVOLUTION OF LOCAL MICROSTRUCTURES SPATIAL INSTABILITIES OF
 CORSENING CLUSTERS
 02/24/1998 - 02/23/2002 FY99: \$112,000 Total: \$159,000
Prin. Invest.: M E GLICKSMAN
Tech. Officer: MSFC/L B JETER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1488 RENSSELAER POLYTECHNIC INSTITUTE 7176
 R/S TRANSIENT DENDRITIC SOLIDIFICATION EXPERIMENT
 02/24/1998 - 02/23/2002 FY99: \$105,000 Total: \$201,600
Prin. Invest.: M B KOSS, M E GLICKSMAN
Tech. Officer: MSFC/A JACKMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 3 25368 RENSSELAER POLYTECHNIC INSTITUTE 7177
 ISOTHERMAL DENDRITIC GROWTH
 12/15/1988 - 08/31/1999 FY99: \$267,639 Total: \$3,630,902
Prin. Invest.: M E GLICKSMAN
Tech. Officer: GRC/E A WINSA, GRC/G A KRAFT
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 5168 RENSSELAER POLYTECHNIC INSTITUTE 7178
 THE ROLE OF GRAIN SURFACE REACTIONS IN THE CHEMISTRY OF STAR FORMING REGIONS
 01/09/1996 - 12/31/1998 FY99: \$0 Total: \$41,000
Prin. Invest.: P ROBERGE
Tech. Officer: ARC/D G TIELENS
CASE Category: 11 - ASTRONOMY

NCC 8 112 RENSSELAER POLYTECHNIC INSTITUTE 7179
 VERY ADVANCED HRST EXPLOITING OFF-BOARD BEAMED POWER
 06/28/1996 - 03/31/1999 FY99: \$0 Total: \$100,559
Prin. Invest.: L N MYRABO
Tech. Officer: GSFC/J T HOWELL
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52126 RENSSELAER POLYTECHNIC INSTITUTE 7180
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/22/1996 - 06/30/1999 FY99: \$1 Total: \$54,001
Prin. Invest.: T A BLANEHET, W G SAWYER
Tech. Officer: LARC/G B NORTHAM, LARC/P O RANSONE
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 1 52160 RENSSELAER POLYTECHNIC INSTITUTE 7181
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/22/1997 - 09/21/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: K E JARSEN
Tech. Officer: LARC/M H CARPENTER
CASE Category: 46 - MECHANICAL ENGR

NGT 3 52310 RENSSELAER POLYTECHNIC INSTITUTE 7182
 THE THREE-DIMENSIONAL NATURE OF DENDRITIC SOLIDIFICATION PROCESSES
 06/21/1996 - 06/30/1998 FY99: \$0 Total: \$44,000
Prin. Invest.: M E GLICKSMAN
Tech. Officer: GRC/F MONTEGANI
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 3 52341 RENSSELAER POLYTECHNIC INSTITUTE 7183
 POWDER LUBRICATED JOURNAL BEARING DEVELOPMENT
 06/29/1998 - 08/31/2000 FY99: \$22,000 Total: \$42,000
Prin. Invest.: J A TICHY
Tech. Officer: GRC/D MONTEGANI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50165 RENSSELAER POLYTECHNIC INSTITUTE 7184
 SCALABLE INSTRUMENTATION AND DATABASE APPROACH TO PERFORMANCE ANALYSIS OF PARALLEL SCIENTIFIC APPLICATIONS
 06/03/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: B SZMANSKI
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52802 RENSSELAER POLYTECHNIC INSTITUTE 7185
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/28/1995 - 07/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: M E GLICKSMAN
Tech. Officer: MSFC/F SIX, MSFC/F R SZOFRAN
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 3443 ROCHESTER INSTITUTE OF TECHNOLOGY 7186
 ABSOLUTE CALIBRATION, ATMOSPHERIC CORRECTION AND APPLICATION OF LANDSAT-7 ETM+ THERMAL INFRARED...
 11/03/1996 - 10/31/1999 FY99: \$191,551 Total: \$584,827
Prin. Invest.: J SCHOTT
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3728 ROCHESTER INSTITUTE OF TECHNOLOGY 7187
 DEVELOPMENT OF BACK ILLUMINATED PREAMP PER PIXEL DEVICE ARRAYS
 02/21/1997 - 12/31/1999 FY99: \$141,633 Total: \$367,451
Prin. Invest.: D NINKOV
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 6486 ROCHESTER INSTITUTE OF TECHNOLOGY 7188
 CHARACTERIZATION AND DEVELOPMENT OF CHARGE INJECTION DEVICE ARRAYS FOR SPACE APPLICATIONS
 10/31/1997 - 08/31/1999 FY99: \$0 Total: \$129,569
Prin. Invest.: D NINKOV
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1008 ROCHESTER INSTITUTE OF TECHNOLOGY 7189
 JOVE
 11/24/1993 - 08/08/1998 FY99: -\$94 Total: \$112,906
Prin. Invest.: M L WINGSWORTH, Z NINKOV
Tech. Officer: MSFC/F SIX
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 1072 ROCHESTER INSTITUTE OF TECHNOLOGY 7190
 SUMMER FACULTY DIRECTOR'S GRANT
 01/20/1999 - 12/31/1999 FY99: \$15,500 Total: \$15,500
Prin. Invest.: C T WALLINGTON
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4135 ROCHESTER INSTITUTE OF TECHNOLOGY 7191
 CHARACTERIZATION AND DEVELOPMENT OF CHARGE INJECTION DEVICE ARRAYS
 09/16/1994 - 02/28/1998 FY99: -\$1 Total: \$368,349
Prin. Invest.: Z NINKEY
Tech. Officer: HQ/T KOSTIUK
CASE Category: 11 - ASTRONOMY

NCC 3 710 ROCHESTER INSTITUTE OF TECHNOLOGY 7192
 DEVELOPMENT OF THE NEXT-GENERATION THIN FILM CIGS PHOTOVOLTAIC SOLAR CELL
 06/01/1999 - 05/31/2000 FY99: \$60,159 Total: \$60,159
Prin. Invest.: R RAFFAELLE
Tech. Officer: GRC/A F HEPP
CASE Category: 12 - CHEMISTRY

NCC13 98001 ST UN NY COL-ENV SCI & FORESTRY 7193
 A CENTER FOR EXPLORING AND DEVELOPING COMMERCIAL APPLICATIONS OF REMOTE SENSING AND GEO-SPATIAL TEC
 09/01/1998 - 12/31/1999 FY99: \$150,000 Total: \$200,000
Prin. Invest.: P HOPKINS
Tech. Officer: SSC/H CARR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 3 2225 STATE UNIV OF NEW YORK - ALBANY 7194
 LARGE EDDY SIMULATION OF GRAVITATIONAL EFFECTS ON TRANSITIONAL AND TURBULENT GAS-JET DIFFUSION FLAME
 01/22/1999 - 12/10/2002 FY99: \$69,600 Total: \$69,600
Prin. Invest.: D GIVI
Tech. Officer: GRC/K R SACKSTEDER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 2242 STATE UNIV OF NEW YORK - ALBANY 7195
 SURFACE EXCHANGE OBSERVATIONS IN THE CANADIAN BOREAL FOREST REGION
 04/08/1993 - 04/14/1999 FY99: \$0 Total: \$822,500
Prin. Invest.: D B FITZJARRALD
Tech. Officer: GSFC/F G HALL, GSFC/P SELLARS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2714 STATE UNIV OF NEW YORK - ALBANY 7196
 REGIONAL - SCALE CHEMICAL IMPACTS OF AIRCRAFT EXHAUST
 08/31/1994 - 04/30/1998 FY99: -\$7,865 Total: \$419,265
Prin. Invest.: C W WALEK
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4706 STATE UNIV OF NEW YORK - ALBANY 7197
 ABUNDANCES AND DISTRIBUTIONS OF VOLATILE ELEMENTS LUNAR VOLCANIC GLASS SPHERES
 06/11/1997 - 06/30/1999 FY99: \$0 Total: \$35,172
Prin. Invest.: D W DELANO
Tech. Officer: GSFC/D F NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 6227 STATE UNIV OF NEW YORK - ALBANY 7198
 DETECTING INTERACTIONS BETWEEN VEGETATION AND THE THE NORTH-EASTERN UNITED STATES
 09/12/1997 - 12/31/1999 FY99: \$0 Total: \$207,037
Prin. Invest.: D R FITZJARRALD
Tech. Officer: GSFC/D WICKLAND
CASE Category: 11 - ASTRONOMY

NAG 5 7469 STATE UNIV OF NEW YORK - ALBANY 7199
 CASE STUDY INVESTIGATIONS OF LARGE-AMPLITUDE INERT IA-GRAVITY WAVE ENVIRONMENTS AND MESOSCALE
 06/03/1998 - 06/30/2000 FY99: \$60,000 Total: \$94,936
Prin. Invest.: L BOSART
Tech. Officer: GSFC/A NEGRİ
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1309 STATE UNIV OF NEW YORK - ALBANY 7200
 RESEARCH*STUDY OF BENT CAPILLARIES WITH APPLICATION TO THE DEVELOP. FOR OPTIC X-RAY
 09/23/1996 - 08/31/1998 FY99: -\$79 Total: \$61,768
Prin. Invest.: W M GIBSON
Tech. Officer: MSFC/M K JOY, MSFC/C E WINKER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 1 18942 STATE UNIV OF NEW YORK - ALBANY 7201
 SAGE III SCIENCE SUPPORT - P.I. - DR. V. MOHNEN
 01/31/1990 - 01/31/2005 FY99: \$84,230 Total: \$447,630
Prin. Invest.: V MOHNEN
Tech. Officer: LARC/G L MADDREA, LARC/L R MCMASTER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5125 STATE UNIV OF NEW YORK - ALBANY 7202
 USE OF AN EXISTING AIRBORNE RADON DATA BASE IN THE VERIFICATION OF THE NASA/AEAP CORE MODEL
 04/14/1995 - 04/30/1998 FY99: -\$1 Total: \$83,794
Prin. Invest.: M KRITZ
Tech. Officer: ARCL/PFISTER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5212 STATE UNIV OF NEW YORK - ALBANY 7203
 REVIEW QUALITY ASSURANCE AND APPLICATION OF GLOBAL ATMOSPHERIC RADON DATA
 04/03/1997 - 05/31/2000 FY99: \$4,700 Total: \$44,698
Prin. Invest.: M KRITZ
Tech. Officer: ARCL/PFISTER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 283 STATE UNIV OF NEW YORK - ALBANY 7204
 PERIODIC, TRANSIENT, AND SPATIALLY INHOMOGENEOUS INFLUENCES ON EXCHANGE IN AMAZONIA
 06/23/1998 - 12/31/1999 FY99: \$203,474 Total: \$584,063
Prin. Invest.: D R FITZJARRALD
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 8 125 STATE UNIV OF NEW YORK - ALBANY 7205
 RESEARCH BRINGING GREATLY ENHANCED LAB-BASED PROTEIN CRYSTALLOGRAPHY TO THE US BIOTECHNOLOGY
 01/16/1997 - 01/14/2000 FY99: \$271,000 Total: \$1,930,863
Prin. Invest.: W M GIBSON
Tech. Officer: MSFC/K HIGGINBOTHAM
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 30081 STATE UNIV OF NEW YORK - ALBANY 7206
 COMPARATIVE STUDY OF A VARIETY OF VEGETATION TYPES ATMOSPHERIC SURFACE AND PLANETARY BOUNDARY LAYER
 09/11/1997 - 08/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: D R FITZJARRALD
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3866 STATE UNIV OF NEW YORK - BINGHAMTON 7207
 MODELS FOR OPTICAL RADIATION REGIME IN VEGETATION STUDIES
 01/24/1997 - 09/30/1999 FY99: \$0 Total: \$80,513
Prin. Invest.: M GOEL
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 1 336 STATE UNIV OF NEW YORK - BINGHAMTON 7208
 RELIABILITY CRITERIA-BASED FLIGHT SYSTEM CONTROL MY 1/3
 04/30/1999 - 01/31/2002 FY99: \$48,595 Total: \$48,595
Prin. Invest.: N WU
Tech. Officer: LARC/C M BELCASTRO, LARC/C M BELCASTRO
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1122 STATE UNIV OF NEW YORK - BUFFALO 7209
 LARGE EDDY SIMULATORS AND DIRECT NUMERICAL SIMULATORS OF
 HIGH SPEED TURBULANT REACTING FLOWS
 04/19/1990 - 07/31/1998 FY99: \$22,500 Total: \$514,271
Prin. Invest.: P GIBI
Tech. Officer: LARC/J P DRUMMOND
CASE Category: 46 - MECHANICAL ENGR

NAG 1 1800 STATE UNIV OF NEW YORK - BUFFALO 7210
 DEVELOPMENT OF OPTIMAL CONVERGENCE STRATEGIES FOR DIS-
 TRIBUTED COMPLEX DESIGN
 01/26/1996 - 08/01/1998 FY99: -\$1 Total: \$112,064
Prin. Invest.: C L BLOEBAUM
Tech. Officer: LARC/J L ROGERS, LARC/T A ZANG
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 2238 STATE UNIV OF NEW YORK - BUFFALO 7211
 FILTERED MASS DENSITY FUNCTION FOR DESIGN SIMU- LATIONS OF
 HIGH SPEED AIRBREATHING PROPULSION SYS.
 09/20/1999 - 08/31/2002 FY99: \$7,500 Total: \$7,500
Prin. Invest.: P GIVI
Tech. Officer: LARC/J P DRUMMOND
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1812 STATE UNIV OF NEW YORK - BUFFALO 7212
 AFFORDABLE HIGH PERFORMANCE COMPUTING: CHARACTERI ZATION
 OF ATM-BASED WORKSTATION CLUSTERS
 03/13/1996 - 07/12/1998 FY99: -\$1,140 Total: \$40,563
Prin. Invest.: P DOWD
Tech. Officer: GRC/D VAN DREI, GRC/I LOPEZ
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2035 STATE UNIV OF NEW YORK - BUFFALO 7213
 NONLINEAR MICROMECHANICAL ANALYSIS OF WOVEN COMPOSI TES BY
 BEM
 04/16/1997 - 01/31/1999 FY99: -\$32 Total: \$125,734
Prin. Invest.: P K BANERJEE, NONE
Tech. Officer: GRC/D A HOPKINS
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 2273 STATE UNIV OF NEW YORK - BUFFALO 7214
 VOLCANO MONITORING FOR ERUPTION PREDICTION AND FOR ECASTING
 USING THE GLOBAL POSITIONING SYSTEM
 05/26/1993 - 07/31/1998 FY99: -\$38 Total: \$84,962
Prin. Invest.: BURSİK
Tech. Officer: GSFC/G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3142 STATE UNIV OF NEW YORK - BUFFALO 7215
 LANDSCAPE EVOLUTION, A COMPARISON OF FORM AND PROCESS
 11/09/1995 - 09/30/1999 FY99: \$0 Total: \$215,531
Prin. Invest.: M BARSİK
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4569 STATE UNIV OF NEW YORK - BUFFALO 7216
 CONSTRUCTION AND CAPABILITIES OF A ROVER-DEPLOYED PENETRAT-
 ING RADAR
 07/23/1997 - 06/30/1999 FY99: \$57,241 Total: \$165,815
Prin. Invest.: D GRANT, III
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 8701 STATE UNIV OF NEW YORK - BUFFALO 7217
 A ROVER-DEPLOYED GROUND PENETRATING RADAR SYSTEM
 07/14/1999 - 06/30/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: J GRANT
Tech. Officer: GSFC/B BETTS
CASE Category: 11 - ASTRONOMY

NGT 1 52185 STATE UNIV OF NEW YORK - BUFFALO 7218
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/12/1998 - 06/30/2000 FY99: \$22,001 Total: \$32,001
Prin. Invest.: K E LEWIS
Tech. Officer: LARC/J SOBIESKI
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 70006 STATE UNIV OF NEW YORK - BUFFALO 7219
 THERMAL & SHORT WAVELENGTH INFRARED MONITORING OF AT ACTIVE
 VOLCANOESSTUDENT:
 09/05/1997 - 10/31/1998 FY99: -\$11 Total: \$21,989
Prin. Invest.: N SHERIDAN
Tech. Officer: GSFC/STOUTSENBERGER
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 1 1264 STATE UNIV OF NEW YORK - STONY BROOK 7220
 THE SURFACE RADIATION BUDGET AND CLOUD CLIMATE INTERACTIONS
 AS A PART OF CERES
 04/29/1991 - 10/31/1998 FY99: -\$153,414 Total: \$673,795
Prin. Invest.: R D CESS
Tech. Officer: LARC/B A WIELICKI, LARC/J W YOUNGBLOOD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2040 STATE UNIV OF NEW YORK - STONY BROOK 7221
 SPARC DATA CENTER MY 1/3
 03/27/1998 - 12/31/2000 FY99: \$59,320 Total: \$118,921
Prin. Invest.: M A GELLER
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2065 STATE UNIV OF NEW YORK - STONY BROOK 7222
 OCEAN BUOY SHORTWAVE (OBS): A DATA SET FOR SATELLITE RETRIEVAL
 AND GCM VALIDATION
 05/01/1998 - 05/31/2000 FY99: \$38,000 Total: \$99,429
Prin. Invest.: R A WALISER
Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2166 STATE UNIV OF NEW YORK - STONY BROOK 7223
 SAGE II RESEARCH ON THE CONTROLLING PROCESSES OF UPPER TRO-
 POSPHERIC & STRATOSPHERIC WATER VAPOR
 03/17/1999 - 06/14/2002 FY99: \$61,000 Total: \$61,000
Prin. Invest.: M A GELLER
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1026 STATE UNIV OF NEW YORK - STONY BROOK 7224
 CELLULAR MECHANISMS OF SPACEFLIGHT SPECIFIC STRESS IN PLANTS
 03/05/1996 - 05/31/1999 FY99: \$0 Total: \$423,859
Prin. Invest.: A D KRIKORIAN
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1325 STATE UNIV OF NEW YORK - STONY BROOK 7225
 APPLICATIONS OF COMPUTATIONAL FEOMETRY IN AIR TRAF FIC MANAGE-
 MENT
 05/19/1999 - 11/30/1999 FY99: \$18,000 Total: \$18,000
Prin. Invest.: J S MITCHELL
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 2739 STATE UNIV OF NEW YORK - STONY BROOK 7226
 TWO-D REPRESENTATION OF THREE-D MODELING OF ATMOSPHERIC
 EFFECTS OF AIRCRAFT
 09/27/1994 - 09/30/1998 FY99: -\$1,163 Total: \$277,676
Prin. Invest.: M A GELLER
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2863 STATE UNIV OF NEW YORK - STONY BROOK 7227
 THE COMPOSITION, STRUCTURE AND EVOLUTION OF NEUTRO N STARS
 01/06/1995 - 09/30/1999 FY99: \$0 Total: \$220,998
Prin. Invest.: J M LATTIMER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3135 STATE UNIV OF NEW YORK - STONY BROOK 7228
 CONSISTENCY STUDY OF THE ENHANCED SHORTWAVE CLOUD ABSORP-
 TION USING GEB A DATA
 11/03/1995 - 11/14/1999 FY99: \$0 Total: \$118,349
Prin. Invest.: M ZHANG
Tech. Officer: GSFC/M D CHOU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3177 STATE UNIV OF NEW YORK - STONY BROOK 7229
 DYNAMICS AND TRANSPORT INVESTIGATIONS USING UARS D ATA
 03/06/1996 - 03/14/1999 FY99: \$0 Total: \$256,000
Prin. Invest.: M A GELLER
Tech. Officer: GSFC/A R DOUGLASS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3261 STATE UNIV OF NEW YORK - STONY BROOK 7230
 THE GASEOUS CONTENT OF THE UNIVERSE AT Z
 06/10/1996 - 04/30/2000 FY99: \$87,000 Total: \$164,000
Prin. Invest.: K M LANZETTA
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3297 STATE UNIV OF NEW YORK - STONY BROOK 7231
 GIANT MOLECULAR CLOUDS AND HIGH MASS STAR FORMATIO N IN THE
 MILKY WAY
 07/15/1996 - 10/31/1998 FY99: -\$246 Total: \$228,754
Prin. Invest.: P M SOLOMON
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3718 STATE UNIV OF NEW YORK - STONY BROOK 7232
 LABORATORY SPECTROSCOPIC MEASUREMENTS RELEVANT TO
 RESEARCH
 01/24/1997 - 12/31/1999 FY99: \$89,547 Total: \$244,481
Prin. Invest.: D VARANABI
Tech. Officer: GSFC/D KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3950 STATE UNIV OF NEW YORK - STONY BROOK 7233
 OPTIMIZATION OF A BIOCHEMICAL COUNTERMEASURE
 02/12/1997 - 02/14/2000 FY99: \$266,116 Total: \$769,355
Prin. Invest.: C T RUBIN
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4043 STATE UNIV OF NEW YORK - STONY BROOK 7234
 CIO MEASUREMENTS AND ANALYSIS IN THE NETWORK FOR T STRATO-
 SPHERIC CHANGE
 05/06/1997 - 12/31/1999 FY99: \$265,592 Total: \$823,421
Prin. Invest.: P SOLOMON
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4071 STATE UNIV OF NEW YORK - STONY BROOK 7235
 STRATOPHERIC AND MESOSPHERIC TRACE GAS STUDIES USI MM-WAVE
 RECEIVERS
 03/21/1997 - 12/31/1999 FY99: \$155,591 Total: \$555,549
Prin. Invest.: R L DE ZAFRA
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4498 STATE UNIV OF NEW YORK - STONY BROOK 7236
 STUDY OF ENVIRONMENTS FOR PLANET FORMATION
 05/06/1997 - 07/31/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: D J SIMON
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4640 STATE UNIV OF NEW YORK - STONY BROOK 7237
 THE STABILITY OF ORBITAL CONFIGURATIONS AND THE UL OF PLANETARY
 AND SATELLITESYSTEMS
 06/09/1997 - 03/31/2000 FY99: \$63,750 Total: \$135,000
Prin. Invest.: D J LISSAUER
Prin. Invest.: NONE
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4792 STATE UNIV OF NEW YORK - STONY BROOK 7238
 A DEEP OBSERVATION OF A WELL-OBSERVED FIELD IN THE AND X-RAY
 EMISSION FROM PMS STARS: SPLITTING THE
 06/23/1997 - 06/30/1999 FY99: \$0 Total: \$16,500
Prin. Invest.: F M WALTER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 4862 STATE UNIV OF NEW YORK - STONY BROOK 7239
 THE X-RAY SPECTRUM OF AN ISOLATED OLD NEUTRON STAR PHOTOME-
 TRY OF AN ISOLATED NEUTRON STAR, AND CYCLO
 06/17/1997 - 05/31/1999 FY99: \$0 Total: \$19,300
Prin. Invest.: F M WALTER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6007 STATE UNIV OF NEW YORK - STONY BROOK 7240
 STUDIES OF EXCITED SPECIES IN PLANETARY UPPER ATMO
 07/23/1997 - 08/31/1998 FY99: -\$436 Total: \$82,564
 Prin. Invest.: D FOX
 Tech. Officer: GSFC/J BERGSTRAHL
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6408 STATE UNIV OF NEW YORK - STONY BROOK 7241
 THE HOT CORONAE OF PRE-MAIN SEQUENCE STARS
 10/10/1997 - 04/14/1999 FY99: \$0 Total: \$32,560
 Prin. Invest.: F WALTER
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 6544 STATE UNIV OF NEW YORK - STONY BROOK 7242
 ORBITS OF SATURN'S INNER MOONS AND OTHER OBSERVATIONS CON-
 NECTED WITH THE 1995-1996 SATURNIAN RING PL
 10/24/1997 - 01/31/2000 FY99: \$30,000 Total: \$77,000
 Prin. Invest.: D LISSAUER, NONE
 Tech. Officer: GSFC/J BERGSTRAHL
 CASE Category: 11 - ASTRONOMY

NAG 5 6565 STATE UNIV OF NEW YORK - STONY BROOK 7243
 COLLABORATIVE RESEARCH: MODELING OF N₂ AND CO₂ FI XATION BY
 THE OCEANIC DIAZOTROPH TRICHODESMIUM
 11/03/1997 - 10/31/1999 FY99: \$46,869 Total: \$94,172
 Prin. Invest.: E CARPENTER
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 11 - ASTRONOMY

NAG 5 6601 STATE UNIV OF NEW YORK - STONY BROOK 7244
 DEVELOPMENT AND VALIDATION OF A TROPICAL ISOPRENE EMISSION
 MODEL
 12/09/1997 - 03/31/2000 FY99: \$0 Total: \$117,349
 Prin. Invest.: M LERDAU
 Tech. Officer: GSFC/D WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6879 STATE UNIV OF NEW YORK - STONY BROOK 7245
 STUDIES OF EXCITED SPECIES IN PLANETARY UPPER ATMO SPHERES
 01/30/1998 - 04/30/2000 FY99: \$92,900 Total: \$176,400
 Prin. Invest.: J L FOX
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 7134 STATE UNIV OF NEW YORK - STONY BROOK 7246
 UARS INVESTIGATIONS OF WAVE-COUPLING IN THE MIDDLE
 ATMOSPHERE
 03/03/1998 - 02/14/2000 FY99: \$65,626 Total: \$140,627
 Prin. Invest.: D A GELLER
 Tech. Officer: GSFC/A DOUGLASS
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7391 STATE UNIV OF NEW YORK - STONY BROOK 7247
 THE SPECTRAL ENERGY DISTRIBUTION OF THE ISOLATED NEUTRON
 STARRXJ185635-3754
 05/07/1998 - 05/14/1999 FY99: \$0 Total: \$12,800
 Prin. Invest.: F M WALTER
 Tech. Officer: GSFC/R J OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 7875 STATE UNIV OF NEW YORK - STONY BROOK 7248
 2+D MODELING EFFORTS FOR SUPERSONIC AIRCRAFT EFFECTS ON THE
 ATMOSPHERE NEW GRANT
 11/30/1998 - 11/30/1999 FY99: \$50,000 Total: \$50,000
 Prin. Invest.: M GELLER
 Tech. Officer: GSFC/R W STEWART
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7978 STATE UNIV OF NEW YORK - STONY BROOK 7249
 A COMPREHENSIVE STUDY OF NEUTRON STAR PHOTOSPHERES -
 (LTS98)
 01/06/1999 - 12/31/2000 FY99: \$28,000 Total: \$28,000
 Prin. Invest.: F M WALTER
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8106 STATE UNIV OF NEW YORK - STONY BROOK 7250
 COSMIC RAYS IN INTERPLANETARY SPACE
 02/04/1999 - 02/14/2000 FY99: \$126,318 Total: \$126,318
 Prin. Invest.: D A FORMAN
 Tech. Officer: GSFC/J LING
 CASE Category: 11 - ASTRONOMY

NAG 5 8169 STATE UNIV OF NEW YORK - STONY BROOK 7251
 SEDIMENTARY GEOCHEMISTRY OF MARTIAN SAMPLES FROM THE PATH-
 FINDER MISSION
 02/16/1999 - 02/28/2001 FY99: \$59,500 Total: \$59,500
 Prin. Invest.: S M MCLENNAN
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8377 STATE UNIV OF NEW YORK - STONY BROOK 7252
 SYSTEMATIC STUDY OF EXPLOSIONS IN CORE COLLAPSE SUPERNOVA -
 REOB. DUE TO PI TRANSF. FROM NAG5-3099
 03/08/1999 - 12/31/1999 FY99: \$28,837 Total: \$28,837
 Prin. Invest.: F SWETSY
 Tech. Officer: GSFC/D WEST
 CASE Category: 22 - COMPUTER SCIENCE

NAG 5 8427 STATE UNIV OF NEW YORK - STONY BROOK 7253
 ROSAT A08 INVESTIGATION: VARIABILITY IN HYADES G STARS
 04/26/1999 - 04/30/2000 FY99: \$10,000 Total: \$10,000
 Prin. Invest.: F M WALTER
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8437 STATE UNIV OF NEW YORK - STONY BROOK 7254
 LOW MASS STAR FORMATION IN ORI OB1A & B (ADP 98)
 04/02/1999 - 03/31/2000 FY99: \$54,988 Total: \$54,988
 Prin. Invest.: F M WALTER
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8462 STATE UNIV OF NEW YORK - STONY BROOK 7255
 STRUCTURE OF PROTOPLANETARY ENVIRONMENTS
 04/19/1999 - 05/31/2000 FY99: \$10,000 Total: \$10,000
 Prin. Invest.: M SIMON
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAGW 4040 STATE UNIV OF NEW YORK - STONY BROOK 7256
 THE STABILITY OF ORBITAL CONFIGURATIONS: THE ULTIM ATE CONFIGU-
 RATION OF PLANETARY & SATELLITE SYSTEM
 06/09/1994 - 09/30/1997 FY99: -\$7,213 Total: \$128,107
 Prin. Invest.: J LISSAUER
 Tech. Officer: HQ/P ROGERS
 CASE Category: 11 - ASTRONOMY

NAGW 5249 STATE UNIV OF NEW YORK - STONY BROOK 7257
 DEVELOPMENT AND VALIDATION OF A TROPICAL ISOPRENE EMISSION
 MODEL
 10/25/1996 - 03/31/1998 FY99: -\$7,814 Total: \$132,704
 Prin. Invest.: M T LERDAU
 Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 1 98142 STATE UNIV OF NEW YORK - STONY BROOK 7258
 CERES SCIENCE INVESTIGATIONS
 10/29/1998 - 10/28/1999 FY99: \$152,666 Total: \$152,666
 Prin. Invest.: R D CESS
 Tech. Officer: LARC/B A WIELICKI
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31720 STATE UNIV OF NEW YORK - STONY BROOK 7259
 EOS INVESTIGATION GLOBAL HYDROLOGIC PROCESSES & CLIMATE
 08/21/1991 - 12/31/1997 FY99: -\$60 Total: \$224,440
 Prin. Invest.: M GELLER
 Tech. Officer: GSFC/W LAU
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 5231 STATE UNIV OF NEW YORK - STONY BROOK 7260
 TIME-CRITICAL VOLUME RENDERING
 07/29/1997 - 07/31/1998 FY99: -\$4 Total: \$19,996
 Prin. Invest.: A KAUFMAN
 Tech. Officer: ARC/M YAMASAKI
 CASE Category: 22 - COMPUTER SCIENCE

NCC 5 126 STATE UNIV OF NEW YORK - STONY BROOK 7261
 INTERDISCIPLINARY GLOBAL CHANGE RESEARCH
 10/05/1995 - 02/15/2000 FY99: \$0 Total: \$324,251
 Prin. Invest.: GELLER
 Tech. Officer: GSFC/B CARLSON
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 342 STATE UNIV OF NEW YORK - STONY BROOK 7262
 INTERDISCIPLINARY GLOBAL CHANGE RESEACH
 06/23/1998 - 02/14/2000 FY99: \$0 Total: \$93,643
 Prin. Invest.: M GELLER
 Tech. Officer: GSFC/B CARLSON
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 8 93 STATE UNIV OF NEW YORK - STONY BROOK 7263
 COMBINED SYNCHROTRON WHITE X-RAY TOPOGRAPHY & HIGH RESOLU-
 TION TRIPLE AXIS X-RAY DIFFRACTION CHARACTE
 04/22/1996 - 03/31/2000 FY99: \$107,026 Total: \$373,986
 Prin. Invest.: M DUDLEY, R J MATYI
 Tech. Officer: MSFC/C TALLEY, MSFC/F R SZOFRAN
 CASE Category: 13 - PHYSICS

NCC 8 100 STATE UNIV OF NEW YORK - STONY BROOK 7264
 RESEARCH ENTITLED "ORBITAL PROCESSING OF EUTECTICS
 06/13/1996 - 11/30/1999 FY99: \$125,000 Total: \$606,250
 Prin. Invest.: D LARSON
 Tech. Officer: MSFC/T TURNER
 CASE Category: 49 - ENGINEERING, OTHER

NCC 8 164 STATE UNIV OF NEW YORK - STONY BROOK 7265
 CRYSTAL GROWTH OF ZNSE AND RELATED TERNARY COMPOUND SEMI-
 CONDUCTORS BY VAPOR TRANSPORT
 10/15/1998 - 10/14/1999 FY99: \$40,000 Total: \$40,000
 Prin. Invest.: M DUDLEY
 Tech. Officer: MSFC/C H SU
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 5 30124 STATE UNIV OF NEW YORK - STONY BROOK 7266
 ENVIRONMENTAL CONTROLS OVER 2-METHYL-3-BUTEN-2-01
 09/30/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: M LERDAU
 Tech. Officer: GSFC/S ASRAR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6102 STATE UNIV OF NEW YORK COL - PLATTSBURGH 7267
 CARBON CHARACTERIZATION, ELEMENT ABUNDANCES AND X- E MEA-
 SUREMENTS ON AH84001
 07/25/1997 - 06/30/1999 FY99: \$0 Total: \$40,000
 Prin. Invest.: G J FLYNN
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 9 1109 STATE UNIV OF NEW YORK COL - PLATTSBURGH 7268
 JSC ASTROBIOLOGY INSTITUTE
 05/11/1999 - 05/13/2000 FY99: \$25,000 Total: \$25,000
 Prin. Invest.: G J FLYNN
 Tech. Officer: JSC/E K GIBSON
 CASE Category: 13 - PHYSICS

NAG 5 2700 STATE UNIV OF NEW YORK COLLEGE - PURCHASE 7269
 IMPROVEMENT OF JET STREAM WIND ANALYSIS USING COMMERCIAL AIR-
 CRAFT DATA
 08/24/1994 - 08/31/1998 FY99: -\$3,641 Total: \$412,851
 Prin. Invest.: J TENENBAUM
 Tech. Officer: GSFC/R W STEWART
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3169 STATE UNIV OF NEW YORK COLLEGE - PURCHASE 7270
 DETERMINATION OF GOS ANALYSIS ERRORS NEAR STRONG J ET
 STREAMS USING HIGHRESOLUTION MODELS & AIRCRAF
 04/15/1996 - 06/30/1999 FY99: \$0 Total: \$205,000
 Prin. Invest.: J TENENBAUM
 Tech. Officer: GSFC/H M HELFAND
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4157 STATE UNIV OF NEW YORK COLLEGE - PURCHASE 7271
 EVOLUTION OF VALLEY NETWORKS
 04/16/1997 - 02/28/2000 FY99: \$0 Total: \$43,585
 Prin. Invest.: D GRANT,III
 Tech. Officer: GSFC/P ROGER
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4691 STATE UNIV OF NEW YORK COLLEGE - PURCHASE 7272
 CARBON AND NITROGEN ABUNDANCES IN INTERPLANETARY TO PRE-BIOTIC ORGANIC MATTER ON EARTH
 06/26/1997 - 05/31/2000 FY99: \$25,000 Total: \$50,000
Prin. Invest.: D J FLYNN
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4843 STATE UNIV OF NEW YORK COLLEGE - PURCHASE 7273
 TRACE ELEMENT ABUNDANCE DETERMINATION OF COSMIC DU
 06/27/1997 - 06/30/2000 FY99: \$66,667 Total: \$120,000
Prin. Invest.: D J FLYNN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 7502 STATE UNIV OF NEW YORK COLLEGE - PURCHASE 7274
 ACQUISITION OF NEAR-TROPOPAUSE METEOROLOGICAL DATA FROM COMMERCIAL AIR-CRAFT
 06/02/1998 - 06/30/1999 FY99: \$0 Total: \$54,000
Prin. Invest.: J TENENBAUM
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8499 STATE UNIV OF NEW YORK COLLEGE - PURCHASE 7275
 DETERMINATION OF GEOS ANALYSIS ERRORS NEAR STRONG JET STREAMS USING HIGHRESOLUTION MODELS & AIRCRAF
 06/14/1999 - 06/30/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: J TENENBAUM
Tech. Officer: GSFC/H M HELFAND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4544 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7276
 PLANETARY GEOLOGY AND GEOPHYSICS UNDERGRADUATE RES
 05/13/1997 - 03/31/2000 FY99: \$46,242 Total: \$204,086
Prin. Invest.: D S KING
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7579 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7277
 FUNDING FOR 'DEBRIS FLOW HAZARD ASSESSMENT, PICO D E ORIZABA, MEXICO'(SENH98-0089)
 08/04/1998 - 01/31/2000 FY99: \$100,000 Total: \$150,000
Prin. Invest.: M F SHERIDAN
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7581 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7278
 FUNDING FOR 'TEPHROSTRATIGRAPHIC AND SATELLITE IMA GERY ANALYSIS OF THE KAMCHATKAN SHORELINE...' (SE
 08/04/1998 - 01/31/2000 FY99: \$50,000 Total: \$75,000
Prin. Invest.: M BURSİK
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 70410 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7279
 GRADUATE STUDENT RESEARCHERS (UMDF) PROGRAM
 07/13/1995 - 08/31/1998 FY99: -\$1,073 Total: \$42,927
Prin. Invest.: M F SHERIDAN
Tech. Officer: HQ/D K RUSSELL
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 8 52861 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7280
 ORIGIN OF CELLULAR PROCESSES ON EARTH
 07/27/1998 - 06/30/2000 FY99: \$0 Total: \$22,000
Prin. Invest.: G R WILSKY
Tech. Officer: MSFC/J F DOWDY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1379 STATE UNIVERSITY OF NEW YORK AT NEW PALTZ 7281
 EFFECT OF SIMULATED MICROGRAVITY ONACTIVATED T CEL L GENE TRASCRIPTION
 08/16/1999 - 12/31/1999 FY99: \$34,747 Total: \$34,747
Prin. Invest.: M A MORROW
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 1 1797 SYRACUSE UNIVERSITY 7282
 CENTER FOR TRAINING AND RESEARCH IN HYPERSONICS
 01/24/1996 - 01/31/2000 FY99: \$0 Total: \$300,000
Prin. Invest.: J E LA GRAFF, E F SPINE
Tech. Officer: LARC/S MASSENBERG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1084 SYRACUSE UNIVERSITY 7283
 MODELING & OPTIMIZATION OF DYNAMIC HOLOGRAPHIC PRO CESS BAC-TERIORHODOSPIN FILMS
 09/25/1996 - 09/14/1998 FY99: \$0 Total: \$200,000
Prin. Invest.: Q W SONG, R BIRGE
Tech. Officer: ARC/C K GARY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1853 SYRACUSE UNIVERSITY 7284
 BEHAVIOR OF RAPIDLY SHEARED BUBBLY SUSPENSIONS
 05/01/1996 - 04/30/2000 FY99: \$234,995 Total: \$725,431
Prin. Invest.: A S SANGANI, D L KOCH
Tech. Officer: GRC/H K NAHRA, GRC/B MOTIL
CASE Category: 43 - CHEMICAL ENGR

NAG 3 2089 SYRACUSE UNIVERSITY 7285
 THREE-DIMENSIONAL VISCOUS INVERSE METHOD WITH ENDW ALL EFFECTS
 03/17/1998 - 12/31/2001 FY99: \$69,830 Total: \$118,903
Prin. Invest.: T DANG
Tech. Officer: GRC/J R WOOD
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2250 SYRACUSE UNIVERSITY 7286
 MEASUREMENT OF TURBULENT PRESSURE AND TEMPERATURE FLUC-TUATIONS IN A GAS TURBINE COMBUSTOR
 03/31/1999 - 12/31/1999 FY99: \$40,000 Total: \$40,000
Prin. Invest.: J E LAGRAFF
Tech. Officer: GRC/G J VAN FOSSEN
CASE Category: 46 - MECHANICAL ENGR

NAG 5 4998 SYRACUSE UNIVERSITY 7287
 EXPERIMENTAL STUDIES OF HYDROGENATION AND OTHER RE UNDER ASTROPHYSICALLY RELEVANT CONDITIONS
 07/21/1997 - 07/14/1998 FY99: -\$50 Total: \$35,375
Prin. Invest.: G VIDALID
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 6822 SYRACUSE UNIVERSITY 7288
 STUDIES OF REACTIONS ON INTERSTELLAR GRAIN ANALOGUES IN A UV-RICH ENVIRONMENT
 01/12/1998 - 12/31/1999 FY99: \$77,000 Total: \$156,000
Prin. Invest.: G VIDALI
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NGT 1 52169 SYRACUSE UNIVERSITY 7289
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/07/1997 - 12/31/1999 FY99: \$17,500 Total: \$49,500
Prin. Invest.: M A KEGEISE, E F SPINA
Tech. Officer: LARC/C B MCGINLEY
CASE Category: 41 - AERONAUTICAL ENGR

NAS 8 99151 UNION COLLEGE 7290
 THERMOPLASTIC COMPOSITE LINES
 09/24/1999 - 05/24/2000 FY99: \$118,000 Total: \$118,000
Prin. Invest.: R B BUCINELL
Tech. Officer: MSFC/A TNETTLES
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 2 975 UNIVERSITY OF ROCHESTER 7291
 DEVELOPMENT OF DETECTOR ARRAYS FOR LOW-BACKGROUND SPACE ASTRONOMY
 06/17/1995 - 07/31/1999 FY99: \$0 Total: \$141,000
Prin. Invest.: W J FORREST, J L PIPHER
Tech. Officer: ARC/J H GOEBEL, ARC/C R MCCREIGHT
CASE Category: 45 - ELECTRICAL ENGR

NAG 2 1142 UNIVERSITY OF ROCHESTER 7292
 PROPOSAL FOR INFRARED SUBMILLIMETER, AND RADIO ASTRONOMY
 07/22/1997 - 11/30/1999 FY99: \$441,349 Total: \$1,089,850
Prin. Invest.: W J FORREST, J L PIPHER
Tech. Officer: ARC/C R MCCREIGHT, ARC/R E MCMURRAY
CASE Category: 13 - PHYSICS

NAG 2 1280 UNIVERSITY OF ROCHESTER 7293
 DEVELOPMENT OF DETECTOR ARRAYS FOR LOW-BACKGROUND SPACE ASTRONOMY
 01/12/1999 - 12/14/1999 FY99: \$65,000 Total: \$65,000
Prin. Invest.: W J FORREST
Tech. Officer: ARC/C R MCCREIGHT
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 3369 UNIVERSITY OF ROCHESTER 7294
 A SEARCH FOR BROWN DWARFS IN THE HAYDES
 08/28/1996 - 08/31/1999 FY99: \$0 Total: \$192,300
Prin. Invest.: W J FORREST
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4976 UNIVERSITY OF ROCHESTER 7295
 DEVELOPMENT OF GE/GA BLOCKED-IMPURITY-BAND DETECTOR FOR ASTRONOMY
 07/10/1997 - 09/30/1999 FY99: \$134,167 Total: \$305,000
Prin. Invest.: D M WATSON
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 6119 UNIVERSITY OF ROCHESTER 7296
 SUNSPOT DYNAMICS
 08/08/1997 - 03/31/2000 FY99: \$73,167 Total: \$173,100
Prin. Invest.: D H THOMAS
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6267 UNIVERSITY OF ROCHESTER 7297
 DEVELOPMENT OF LOW DARK CURRENT, HIGH QUANTUM EFFICIENCY PASSIVELY COOLED SPACE EXPERIMENTS
 08/21/1997 - 06/30/2000 FY99: \$0 Total: \$501,000
Prin. Invest.: D L PIPHER
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 8428 UNIVERSITY OF ROCHESTER 7298
 THE PHYSICS OF RADIATIVE MHD JETS: A NUMERICAL STUDY OF MAGNETIZED YSO OUTFLOWS
 06/02/1999 - 06/14/2000 FY99: \$104,000 Total: \$104,000
Prin. Invest.: A FRANK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8642 UNIVERSITY OF ROCHESTER 7299
 DEVELOPMENT OF 2 - 10 MICRON HgCdTe ARRAYS FOR EXPLORER MIS- SIONS AND SOFIA.
 07/08/1999 - 06/30/2000 FY99: \$228,692 Total: \$228,692
Prin. Invest.: J L PIPHER
Tech. Officer: GSFC/G MUCKLOW
CASE Category: 11 - ASTRONOMY

NAG 8 1382 UNIVERSITY OF ROCHESTER 7300
 RESEARCH "EX VIVO" HEMOPOIESIS IN A THREE-DIMENSIONAL HUMAN BONE CULTURE UNDER SIMULATED MICROGRAVITY
 06/10/1997 - 07/08/2000 FY99: \$144,000 Total: \$324,000
Prin. Invest.: D WU
Tech. Officer: MSFC/C TALLEY
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 2123 UNIVERSITY OF ROCHESTER 7301
 SUNSPOT DYNAMICS
 06/06/1990 - 08/31/1998 FY99: \$0 Total: \$481,900
Prin. Invest.: J H THOMAS
Tech. Officer: HQ/J D BOHLIN, HQ/S KANE
CASE Category: 13 - PHYSICS

NAGW 2356 UNIVERSITY OF ROCHESTER 7302
 CENTER FOR SPACE ENVIRONMENTAL HEALTH (CSEH)
 01/30/1991 - 10/31/1997 FY99: -\$24,273 Total: \$5,071,284
Prin. Invest.: T W CLARKSON
Tech. Officer: HQ/R J WHITE
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 5149 UNIVERSITY OF ROCHESTER 7303
 COMPUTATIONAL MODELING OF SEMICONDUCTOR DYNAMICS AT FEMTO-SECOND TIME SCALES
 08/09/1995 - 08/31/1998 FY99: \$0 Total: \$76,590
Prin. Invest.: G AGRAWAL, NONE
Tech. Officer: ARC/P M GOORJIAN
CASE Category: 45 - ELECTRICAL ENGR

NCC 2 5321 UNIVERSITY OF ROCHESTER 7304
 A CLINICAL EVALUATION OF COOLING THERAPY FOR MULTIPLE SCLEROSIS
 05/03/1999 - 12/31/1999 FY99: \$78,287 Total: \$78,287
Prin. Invest.: S R SCHWID
Tech. Officer: ARC/B LONA, ARC/B W WEBBON
CASE Category: 56 - MEDICAL

NCC 3 660 UNIVERSITY OF ROCHESTER 7305
 WAVEGUIDE COUPLING APPLIED TO AN INTEGRATED THIN FILM NOX SENSOR
 01/06/1999 - 09/24/2000 FY99: \$34,980 Total: \$34,980
Prin. Invest.: T G BROWN
Tech. Officer: GRC/M L TUMA
CASE Category: 13 - PHYSICS

NAG 2 1033 YESHIVA UNIVERSITY 7306
 MULTIDISCIPLINARY STUDIES OF NEURAL PLASTICITY IN SPACE
 05/08/1996 - 11/30/1999 FY99: \$75,782 Total: \$321,551
Prin. Invest.: R S ZUKIN
Tech. Officer: ARC/M D ROSS, ARC/N G DAUNTON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NORTH CAROLINA

NAG 5 3483 BENNETT COLLEGE 7307
 MATHEMATICS, SCIENCE AND TECHNOLOGY AWARDS FOR TEACHANCEMENT PROGRAM
 12/04/1996 - 06/30/1998 FY99: \$0 Total: \$288,152
Prin. Invest.: D OLIVER
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTIDISCIPL, OTHER

NAG 1 1569 DUKE UNIVERSITY 7308
 EXPERIMENTAL AND THEORETICAL AEROELASTIC STUDY OF A WING AND CONTROL-SURFACE WITH FREE PLAY
 02/02/1994 - 01/31/1999 FY99: -\$1 Total: \$100,033
Prin. Invest.: E H DOWELL
Tech. Officer: LARC/S R COLE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1002 DUKE UNIVERSITY 7309
 EXPRESSION OF CONTRACTILE PROTEIN ISOFORMS IN MICROGRAVITY
 08/25/1995 - 06/30/1999 FY99: \$0 Total: \$143,646
Prin. Invest.: P ANDERSON
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1377 DUKE UNIVERSITY 7310
 EVOLUTION OF GENE REGULATORY SYSTEM: STRUCTURAL & FUNCTIONAL ANALYSES OF EVOLUTIONARY DIVERSIFICATION
 08/19/1999 - 02/29/2000 FY99: \$63,859 Total: \$63,859
Prin. Invest.: G A WRAT
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1433 DUKE UNIVERSITY 7311
 AEROACOUSTIC SENSITIVITY ANALYSIS & OPTIMAL AEROACOUSTIC DESIGN OF TURBOMACHINERY BLADES
 01/15/1993 - 07/31/1998 FY99: \$0 Total: \$303,395
Prin. Invest.: K HALL
Tech. Officer: GRC/D HOYNIK, GRC/D L HUFF
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1838 DUKE UNIVERSITY 7312
 DENSITY EQUILIBRATION IN FLUIDS NEAR THE LIQUID-VAPOR CRITICAL POINT
 04/22/1996 - 04/30/2000 FY99: \$62,000 Total: \$267,000
Prin. Invest.: H MEYER
Tech. Officer: GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1917 DUKE UNIVERSITY 7313
 DYNAMICS OF GRANULAR MATERIAL
 07/15/1996 - 08/05/2000 FY99: \$120,000 Total: \$412,000
Prin. Invest.: R BEHRINGER
Tech. Officer: GRC/E NELSON
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 3665 DUKE UNIVERSITY 7314
 A STUDY OF CARBON MONOXIDE USING TRACE CONSTITUENT DATA ASSIMILATION: A NEW APPROACH IN GLOBAL ...
 01/15/1997 - 12/31/1999 FY99: \$178,753 Total: \$646,175
Prin. Invest.: P KABIBHATLA
Tech. Officer: GSFC/R ROOD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4491 DUKE UNIVERSITY 7315
 FACTORS AFFECTING DECOMPRESSION SICKNESS IN ASTROEXTRAVEHICULAR ACTIVITY
 04/30/1997 - 11/30/1998 FY99: \$0 Total: \$89,986
Prin. Invest.: R D VANN
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 5148 DUKE UNIVERSITY 7316
 MONITORING THE EFFECTS OF FIRES IN BOREAL FORESTS USING IMAGING RADARS
 07/11/1997 - 10/31/1998 FY99: \$0 Total: \$60,136
Prin. Invest.: E KASISCHKE
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6482 DUKE UNIVERSITY 7317
 CENTER OF EXCELLENCE IN REMOTE SENSING FOR INTEGRATED LANDSCAPE CHANGE
 11/18/1997 - 09/30/1999 FY99: \$0 Total: \$210,000
Prin. Invest.: P N HALPIN
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6988 DUKE UNIVERSITY 7318
 REPRESENTING KEY PHYTOPLANKTON GROUPS IN OCEAN CARBON CYCLE MODELS
 02/20/1998 - 02/14/2000 FY99: \$100,000 Total: \$148,793
Prin. Invest.: R T BARBER
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 33 - OCEANOGRAPHY

NAG 5 7155 **DUKE UNIVERSITY** **7319**
 REQUEST FOR PARTIAL SUPPORT FOR THE WORKSHOP ON IN VERSE
 MODELING OF GLOBAL BIOGEOCHEMICAL CYCLE
 03/03/1998 - 12/31/1999 FY99: \$18,900 Total: \$37,800
Prin. Invest.: P KASIBHATLA
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8533 **DUKE UNIVERSITY** **7320**
 TO WHAT EXTENT CAN INCREASED EVAPOTRANSPIRATION DUE TO
 GROUNDWATER BASED IRRIGATION IN THE GREAT
 07/02/1999 - 07/14/2000 FY99: \$51,464 Total: \$51,464
Prin. Invest.: S ROJSTACZER
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 966 **DUKE UNIVERSITY** **7321**
 CRYSTALLIZATION OF SOLUTION PROPERTIES OF REDESIGNED PROTEIN
 SURFACES
 08/10/1993 - 12/31/1998 FY99: \$0 Total: \$215,739
Prin. Invest.: D C RICHARDSON
Tech. Officer: MSFC/D CARTER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1581 **DUKE UNIVERSITY** **7322**
 R/S DIFFERENTIATION AND MAINTENANCE OF SKELETAL AND CARDIAC
 MUSCLE IN SIMULATED GRAVITY
 04/28/1999 - 11/30/2002 FY99: \$92,000 Total: \$92,000
Prin. Invest.: W E KRAUS
Tech. Officer: MSFC/B GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 810 **DUKE UNIVERSITY** **7323**
 SKELETAL MUSCLE DEVELOPMENT & DIFFERENTIATION IN VITRO BY
 MECHANICAL & CHEMICAL FACTORS
 09/13/1995 - 09/02/1999 FY99: \$0 Total: \$590,758
Prin. Invest.: W E KRAUS
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 939 **DUKE UNIVERSITY** **7324**
 EXPERIMENTAL TRIALS TO TEST OXYGEN PREBREATHE PROTOCOLS FOR
 SPACE STATION CONSTRUCTION
 04/15/1997 - 04/15/1999 FY99: \$0 Total: \$195,000
Prin. Invest.: R VANN
Tech. Officer: JSC/M POWELL
CASE Category: 56 - MEDICAL

NAGW 4483 **DUKE UNIVERSITY** **7325**
 MONITORING THE EFFECTS OF FIRE IN BOREAL FORESTS USING IMAGING
 RADARS
 05/13/1995 - 05/31/1998 FY99: \$0 Total: \$120,009
Prin. Invest.: E KASISOHKE, N L CHRISTENSEN, NONE
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 1 250 **DUKE UNIVERSITY** **7326**
 ACTIVE CONTROL STRATEGIES AND TRANSDUCTION DEVICE FOR
 INTERIOR NOISE CONTROL
 02/06/1997 - 12/31/1999 FY99: \$85,232 Total: \$278,983
Prin. Invest.: R L CLARK
Tech. Officer: LARC/D E COX
CASE Category: 46 - MECHANICAL ENGR

NCC 5 233 **DUKE UNIVERSITY** **7327**
 A GROUND-TRUTHING PROGRAM IN SUPPORT OF THE VEGETATION MISSION.
 09/03/1997 - 08/31/2000 FY99: \$0 Total: \$39,437
Prin. Invest.: D L URBAN
Tech. Officer: GSFC/R KNOX
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 9 42 **DUKE UNIVERSITY** **7328**
 BIOPHYSICAL, MATHEMATICAL MODELS OF GAS FORMATION
 09/25/1995 - 10/01/1998 FY99: \$0 Total: \$103,130
Prin. Invest.: W GERTH
Tech. Officer: JSC/M POWELL
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NCC 9 83 **DUKE UNIVERSITY** **7329**
 PREBREATHE REDUCTION PROTOCOL
 03/11/1999 - 03/10/2000 FY99: \$150,000 Total: \$150,000
Prin. Invest.: R VANN
Tech. Officer: JSC/M GERNHARDT
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NGT 30253 **DUKE UNIVERSITY** **7330**
 NGT-30253/DUKE UNIV/GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/02/1994 - 08/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: N L CHRISTENSEN JR.
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 2 52236 **DUKE UNIVERSITY** **7331**
 UTILIZATION OF KNOWN PHYLOGENIES FOR ASSESSING & IMPROVING
 RECONSTRUCTION OF THE HISTORY OF LIFE....
 09/23/1997 - 07/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: C CUNNINGHAM
Tech. Officer: ARC/K W CULLINGS, ARC/M L FONDA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 2 52248 **DUKE UNIVERSITY** **7332**
 A NEW APPROACH TO LARGE-SCALE PROBABILISTIC PLANNING
 08/25/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: M L LITTMAN
Tech. Officer: ARC/K P GOLDEN
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 69 **DUKE UNIVERSITY** **7333**
 A REGIONAL ASSESSMENT OF THE RATE AND DIRECTION OF CHANGE IN
 SOIL ORGANIC CARBON POOLS DUE TO LAND
 05/28/1998 - 09/14/2000 FY99: \$22,000 Total: \$40,100
Prin. Invest.: B SCHLESINGER
Tech. Officer: GSFC/M S BURRELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30055 **DUKE UNIVERSITY** **7334**
 THIRD YEAR FUNDING: "FOREST SOILS AS A SINK FOR A INTERACTIONS
 BETWEEN ELEVATED CO2 AND FOREST GROW
 09/11/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: W H SCHLESINGER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30057 **DUKE UNIVERSITY** **7335**
 "EFFECTS OF PLANT CO2 RESPONSE ON SOIL FERTILITY: FACTORS CON-
 TROLLING CARBON STORAGE IN THE BIOSPHER
 09/06/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: W H SCHLESINGER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30065 **DUKE UNIVERSITY** **7336**
 GLOBAL CHANGE FELLOWSHIP PROGRAM: THE GROWTH RESP TREE
 SPECIES TO ELEVATED CO2 AND REDUCED SOIL MOI
 09/09/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: B STRAIN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30105 **DUKE UNIVERSITY** **7337**
 EFFECTS OF PLANT-SOIL INTERACTIONS ON CARBON STORA GE IN A
 CHESAPEAK BAY MARSH: DOES ELEVATED CO2I
 10/24/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: D REYNOLDS
Tech. Officer: GSFC/M WEI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30107 **DUKE UNIVERSITY** **7338**
 THIRD YEAR: "SOIL CARBON DIOXIDE AND WATER RELATI ONS IN THE
 BOREALFOREST: LINKING MOISTUREA
 12/04/1997 - 08/31/1998 FY99: -\$6 Total: \$21,994
Prin. Invest.: D RICHTER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30117 **DUKE UNIVERSITY** **7339**
 THE EFFECTS OF WILDFIRE ON CARBON CYCLING IN SOILS OF INTERIOR
 ALASKA ESSF RECIPIENT: KATHERINE O'NE
 10/01/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: D RICHTER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50159 **DUKE UNIVERSITY** **7340**
 IMPLICATIONS OF LAND-USE LEGACIES IN DUKE FOREST: ASSESSING
 CHANGES IN LAND COVER, FOREST PRODUCTIVI
 10/02/1997 - 10/01/1998 FY99: \$0 Total: \$21,077
Prin. Invest.: D URBAN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50224 **DUKE UNIVERSITY** **7341**
 VARYING EOLIAN DUST INPUTS AND SPATIOTEMPORAL PATT ERNS OF
 CHANGE ONCARIBBEAN CORAL REEFS
 09/29/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R T BARBER, M HAYES
Tech. Officer: HQ/A NURRIDIN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50266 **DUKE UNIVERSITY** **7342**
 CYTOSKELETAL CONTRIBUTIONS TO CHANGES IN ELASTICIT Y OF MAM-
 MALIAN MYOCYTES AFTER CYCLIC MECHANICAL
 07/07/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: G TRUSKEY
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52842 **DUKE UNIVERSITY** **7343**
 GRADUATE STUDENT RESEARCH PROGRAM
 07/30/1997 - 08/14/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: L N VIRGIN
Tech. Officer: MSFC/JDOWDY
CASE Category: 46 - MECHANICAL ENGR

NAG 5 4924 **EAST CAROLINA UNIVERSITY** **7344**
 MONITORING THE EFFECTS OF FIRES IN BOREAL FORESTS
 06/25/1997 - 09/30/1998 FY99: -\$228 Total: \$24,446
Prin. Invest.: Y WANG
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4505 **EAST CAROLINA UNIVERSITY** **7345**
 MONITORING THE EFFECTS OF FIRES IN THE BOREAL FORE STS
 05/31/1995 - 09/30/1997 FY99: -\$3,024 Total: \$47,428
Prin. Invest.: Y WANG, E KASISCHKE
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 2229 **ELIZABETH CITY STATE UNIVERSITY** **7346**
 A PILOT COMPUTER AIDED DESIGN AND MANUFACTUREING CURRICULM
 THAT PROMOTES ENGINEERING
 09/15/1999 - 07/31/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: E LAWRENCE
Tech. Officer: LARC/G D REESE
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2150 **ELIZABETH CITY STATE UNIVERSITY** **7347**
 CONTROLLING CHAOS IN JOSEPHSON JUNCTION CONTROLLING CHAOS IN
 JOSEPHSON JUNCTION
 04/07/1998 - 05/31/2001 FY99: \$106,391 Total: \$162,848
Prin. Invest.: D SENGUPTA, S K KANA, K D EDOH
Tech. Officer: GRC/M ANDRO, GRC/E J PETRIK
CASE Category: 21 - MATHEMATICS

NAG 5 6814 **ELIZABETH CITY STATE UNIVERSITY** **7348**
 DR. C.D. TURNAGE PRE-COLLEGE AWARDS FOR EXCELLENCE IN MATH-
 EMATICS, SCIENCE, ENGINEERING AND TECHNOL
 01/05/1998 - 11/30/1999 FY99: \$100,000 Total: \$200,000
Prin. Invest.: S SACHDEV
Tech. Officer: GSFC/STOUTSENBERGER
CASE Category: 99 - MULTIINTERDISCIPL, OTHER

NAG10 252 ELIZABETH CITY STATE UNIVERSITY 7349
 PROVIDE RESEARCH EXPERIENCES FOR SOCIALLY AND ECONOMICALLY
 DISADVANTAGED STUDENTS
 08/12/1998 - 07/31/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: E LAWRENCE
Tech. Officer: KSC/R MC KINNEY
CASE Category: 49 - ENGINEERING, OTHER

NCC 5 121 ELIZABETH CITY STATE UNIVERSITY 7350
 REGIONAL NETWORK RESOURCES AND TRAINING SITE AT ECSU
 08/15/1995 - 08/14/2000 FY99: \$550,000 Total: \$2,233,000
Prin. Invest.: L HAYDEN
Tech. Officer: GSFC/J BENNETT
CASE Category: 22 - COMPUTER SCIENCE

NAG 1 1928 FAYETTEVILLE STATE UNIVERSITY 7351
 PRESERVICE/INSERVICE/MODEL FOR TEACHING INTEGRATED MATH/SCI-
 ENCE WITH TECHNOLOGY (TIMS/T)
 05/20/1997 - 07/31/1999 FY99: \$57,872 Total: \$720,000
Prin. Invest.: L EDWARD, JR.
Tech. Officer: LARC/S CANRIGHT, LARC/E PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2227 FAYETTEVILLE STATE UNIVERSITY 7352
 TEACHING INTEGRATED MATHEMATICS AND SCIENCE WITH TECHNOLOGY
 AND NASA RESOURCES: A PARTNERSHIP
 08/23/1999 - 07/31/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: L EDWARDS
Prin. Invest.: NONE
Tech. Officer: LARC/S MASSENBERG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2072 FAYETTEVILLE STATE UNIVERSITY 7353
 GENERATING ELECTRONIC MATERIALS (GEM) FOR TEACHING /LEARNING
 MATHEMATIC AND SCIENCE TEACHER TRAINING
 07/28/1997 - 06/30/1999 FY99: \$0 Total: \$67,000
Prin. Invest.: L EDWARDS
Tech. Officer: GRC/R F LAWRENCE
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 5 6095 FAYETTEVILLE STATE UNIVERSITY 7354
 PACE/MSET AWARD
 09/10/1997 - 08/31/1999 FY99: \$0 Total: \$200,000
Prin. Invest.: L EDWARDS
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 996 FAYETTEVILLE STATE UNIVERSITY 7355
 JOVE
 11/19/1993 - 08/31/1998 FY99: -\$13,543 Total: \$55,951
Prin. Invest.: J WU
Tech. Officer: MSFC/F SIX
CASE Category: 13 - PHYSICS

NGT 5 90055 FAYETTEVILLE STATE UNIVERSITY 7356
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 03/13/1997 - 05/31/1999 FY99: \$0 Total: \$84,325
Prin. Invest.: L EDWARDS
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 90071 FAYETTEVILLE STATE UNIVERSITY 7357
 NASA TECHNOLOGY INSTITUTE (FORMERLY GRAPHING CALCU
 05/22/1997 - 03/31/1999 FY99: \$0 Total: \$186,462
Prin. Invest.: L EDWARDS
Tech. Officer: GSFC/L RANDOLPH
CASE Category: 21 - MATHEMATICS

NAG 3 2022 JOHNSON C. SMITH UNIVERSITY 7358
 CONSERVATION/SOLUTION METHOD (STE) FOR LINEAR POTE NTIAL FLOW
 PROBLEMS
 03/10/1997 - 12/31/1999 FY99: \$33,312 Total: \$99,936
Prin. Invest.: J O ADEYEYE
Tech. Officer: GRC/J R SCOTT
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 3 2290 JOHNSON C. SMITH UNIVERSITY 7359
 OPTIMUM DESIGN OF PASSIVE MILLIMETER WAVE IMAGING WITH SUPER-
 RAYLEIGH RESOLUTION OF APPLICATION TO
 09/02/1999 - 08/31/2000 FY99: \$55,000 Total: \$55,000
Prin. Invest.: M F ATTIA
Tech. Officer: GRC/I M BLANKSON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 956 NORTH CAROLINA A&T STATE UNIVERSITY 7360
 A SPACE TECHNOLOGY DEVELOPMENT AND UTILIZATION PROGRAM
 01/13/1989 - 05/31/1999 FY99: \$0 Total: \$6,269,124
Prin. Invest.: L SHARPE, A HOMAIFAR, A CHOWDHURY
Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1754 NORTH CAROLINA A&T STATE UNIVERSITY 7361
 THREE-DIMENSIONAL GEOMETRIC NONLINEAR CONTACT STRE SS ANALY-
 SIS OF A TWO-RIVET LAP JOINT
 09/18/1995 - 09/17/1998 FY99: \$0 Total: \$140,894
Prin. Invest.: K N SHIVAKUMAR
Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU
CASE Category: 46 - MECHANICAL ENGR

NAG 1 1874 NORTH CAROLINA A&T STATE UNIVERSITY 7362
 PHENYLETHYNYL CONTAINING POLYARYLENE ETHERS/ POLYIMIDES
 RESIN INFILTRATION OF COMPOSITES
 09/27/1996 - 09/30/2000 FY99: \$83,000 Total: \$300,000
Prin. Invest.: D O DUNN
Tech. Officer: LARC/B J JENSEN
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1956 NORTH CAROLINA A&T STATE UNIVERSITY 7363
 APPROACHES TO DESIGN AND EVALUATION OF SANDWICH COMPOSI-
 TES.NLPN 97-514
 07/10/1997 - 05/31/2000 FY99: \$62,000 Total: \$157,000
Prin. Invest.: K N SHIVAKUMAR
Tech. Officer: LARC/I S RAJU, LARC/C C POE
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 2225 NORTH CAROLINA A&T STATE UNIVERSITY 7364
 ACCESS TO SPACE THROUGH RESEARCH AND EDUCATION MY 1/2
 08/24/1999 - 07/31/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: F FERGUSON
Tech. Officer: LARC/R S CALLOWAY, LARC/B K OUTLAW
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1150 NORTH CAROLINA A&T STATE UNIVERSITY 7365
 MOTION PLANNING IN A SOCIETY OF INTELLIGENT MOBILE AGENTS
 08/22/1997 - 12/31/1999 FY99: \$44,600 Total: \$221,468
Prin. Invest.: A C ESTERLINE
Tech. Officer: ARC/G S LEE
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 2 6028 NORTH CAROLINA A&T STATE UNIVERSITY 7366
 RONALD E. MCNAIR GRADUATE RESEARCH FELLOWSHIP PROG RAM
 02/22/1999 - 12/31/1999 FY99: \$323,500 Total: \$323,500
Prin. Invest.: M R SALAMI, L SHARPE
Tech. Officer: ARC/A J HATCH
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1734 NORTH CAROLINA A&T STATE UNIVERSITY 7367
 COMPUTATIONAL ASSESSMENT OF FAN BY-PASS SYSTEM DES IGNIN
 ADVANCED DUCT PROPULSORS
 04/01/1995 - 03/31/2000 FY99: \$0 Total: \$240,682
Prin. Invest.: S CHANDRA, F FERGUSON, R KRISHNAMURTHY
Tech. Officer: GRC/K J KACYNSKI
CASE Category: 41 - AERONAUTICALENGNR

NAG 3 1835 NORTH CAROLINA A&T STATE UNIVERSITY 7368
 ROBUST, BRILLOUIN ACTIVE EMBEDDED FIBER-IS-THE-SEN SOR SYSTEM
 IN SMART COMPOSITE
 04/22/1996 - 05/31/2000 FY99: \$0 Total: \$283,936
Prin. Invest.: D YU
Tech. Officer: GRC/E B CLARK
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2055 NORTH CAROLINA A&T STATE UNIVERSITY 7369
 FEASIBILITY INVESTIGATION ON THE DEVELOPMENT OF A S TRUCTURAL
 DAMAGE DIAGNOSTICAND MONITORING
 07/01/1997 - 06/30/1998 FY99: \$0 Total: \$25,000
Prin. Invest.: J Y SHEN, C SHARPE
Tech. Officer: GRC/D F NOGA, GRC/A L JANKOVSKY
CASE Category: 41 - AERONAUTICALENGNR

NAG 3 2165 NORTH CAROLINA A&T STATE UNIVERSITY 7370
 DEVELOPMENT OF A STRUCTURAL DAMAGE DIAGNOSTIC AND MONITOR-
 ING SYSTEM FOR ROCKETENGINES PHASE I: DAMA
 06/11/1998 - 06/30/2000 FY99: \$40,000 Total: \$90,000
Prin. Invest.: Y ELLEN, L SHARPE
Tech. Officer: GRC/D F NOGA, GRC/A L JANKOVSKY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 4 118 NORTH CAROLINA A&T STATE UNIVERSITY 7371
 MULTIDISCIPLINARY MODELING & SIMULATION OF AEROSPACE VEHICLE
 SYSTEMS
 03/27/1997 - 09/30/1999 FY99: \$0 Total: \$99,998
Prin. Invest.: M HUMAN
Tech. Officer: DFRC/K K GUPTA, DFRC/L S VOELKER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 131 NORTH CAROLINA A&T STATE UNIVERSITY 7372
 ARTIFICIAL POTENTIAL FIELD BASED MOTION PLANNING/ NAVIGATION IN 2
 & 3 DIMENSIONAL DYNAMIC ENVIRON.
 06/06/1997 - 10/31/1999 FY99: \$89,000 Total: \$354,016
Prin. Invest.: A V HOMAIFAR, NONE
Tech. Officer: DFRC/K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 132 NORTH CAROLINA A&T STATE UNIVERSITY 7373
 HYBRID MOTION PLANNING WITH MULTIPLE DESTINATIONS NEW AWARD
 06/10/1997 - 06/30/2000 FY99: \$91,000 Total: \$273,294
Prin. Invest.: J CLOUSE, NONE
Tech. Officer: DFRC/K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 152 NORTH CAROLINA A&T STATE UNIVERSITY 7374
 INVESTIGATION OF AERO SERVO STRUCTURAL INTERACTIO IN AERO-
 SPACE APPLICATIONS
 03/23/1998 - 03/19/2001 FY99: \$100,000 Total: \$200,000
Prin. Invest.: S CHANDRA
Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3110 NORTH CAROLINA A&T STATE UNIVERSITY 7375
 DYNAMICS OF MASS TRANSFER IN CLOSE INTERACTING BINARIES
 10/12/1995 - 10/14/1998 FY99: -\$3,820 Total: \$42,680
Prin. Invest.: J M BLONDIN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4102 NORTH CAROLINA A&T STATE UNIVERSITY 7376
 FORMAL FOUNDATIONS OF AGENTS
 03/31/1997 - 11/30/1999 FY99: \$95,879 Total: \$295,567
Prin. Invest.: A ESTERLINE
Tech. Officer: GSFC/W TRUSZKOWSKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 7158 NORTH CAROLINA A&T STATE UNIVERSITY 7377
 SELF-TIMED SYNCHRONOUS DIGITAL SYSTEM DESIGN
 03/11/1998 - 05/14/1999 FY99: \$0 Total: \$99,553
Prin. Invest.: D S VAINSTEIN
Tech. Officer: GSFC/P CORONADO
CASE Category: 45 - ELECTRICAL ENGR

NAG 8 1142 NORTH CAROLINA A&T STATE UNIVERSITY 7378
 ROCKET ENGINE STUDY
 05/15/1995 - 12/31/1999 FY99: \$0 Total: \$69,729
Prin. Invest.: K JONES
Tech. Officer: MSFC/J RUF
CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1247 NORTH CAROLINA A&T STATE UNIVERSITY 7379
 DEVELOPMENT & TESTING OF A VIBROMETRY TECHNIQUE FOR HEALTH
 MONITORING OF COMPOSITE MATERIAL STRUCT
 10/31/1996 - 10/31/1999 FY99: \$92,784 Total: \$284,507
Prin. Invest.: D J SCHULZ
Tech. Officer: MSFC/C WILKERSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1396 NORTH CAROLINA A&T STATE UNIVERSITY 7380
 R/S "SOLUTION POLYMERIZATION OF THERMOSETS IN 1-G AND
 MICROGRAVITY ENVIRONMENT"
 08/28/1997 - 12/31/1999 FY99: \$0 Total: \$193,746
Prin. Invest.: A P KENNEDY
Tech. Officer: MSFC/B PENN
CASE Category: 12 - CHEMISTRY

NAG 8 1632 NORTH CAROLINA A&T STATE UNIVERSITY 7381
 POLYMERIZATION OF ADVANCED THERMOSETS IN MICRO- GRAVITY TO
 DEVELOP ULTRA LOW LOSS PLOYMERS
 09/17/1999 - 08/31/2000 FY99: \$99,983 Total: \$99,983
 Prin. Invest.: A KENNEDY
 Tech. Officer: MSFC/A BEAM, MSFC/W LOVE
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1646 NORTH CAROLINA A&T STATE UNIVERSITY 7382
 STRUCTURAL HEALTH MONITORING OF AEROSPACE VEHICLES
 09/30/1999 - 09/30/2001 FY99: \$100,000 Total: \$100,000
 Prin. Invest.: N
 Tech. Officer: MSFC/A BEAM, MSFC/W LOVE
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 973 NORTH CAROLINA A&T STATE UNIVERSITY 7383
 INTELLIGENT AGENTS-BASED SCHEDULING
 09/25/1997 - 12/31/1999 FY99: \$40,712 Total: \$132,947
 Prin. Invest.: B RAM
 Tech. Officer: JSC/J D ERICK SUN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 201 NORTH CAROLINA A&T STATE UNIVERSITY 7384
 CLEANING OF CONTAMINATED SUBSTRATES
 10/23/1996 - 12/22/2000 FY99: \$0 Total: \$284,083
 Prin. Invest.: G WHITE
 Tech. Officer: KSC/G ALLEN
 CASE Category: 43 - CHEMICAL ENGR

NAS 1 19157 NORTH CAROLINA A&T STATE UNIVERSITY 7385
 EXPERIMENTAL, DEVELOPMENTAL AND BASIC AND APPLIED RESEARCH
 08/03/1990 - 08/02/1998 FY99: \$0 Total: \$4,736,393
 Prin. Invest.: L SHARPE
 Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 3 96055 NORTH CAROLINA A&T STATE UNIVERSITY 7386
 NEW MECHANISTIC CONSTITUTIVE MODEL FOR HIGH TEMPERATURE
 CMCS UNDER MONOTONIC CYCLIC LOADING
 11/05/1996 - 09/30/1999 FY99: \$0 Total: \$120,000
 Prin. Invest.: J SANKAR, A D KELKAR
 Tech. Officer: GRC/R BHATT, GRC/E HANES
 CASE Category: 47 - METAL & MATERIALS ENGR

NCC 1 255 NORTH CAROLINA A&T STATE UNIVERSITY 7387
 THE CENTER FOR AEROSPACE RESEARCH: A NASA CENTER OF EXCEL-
 LENCE
 05/13/1997 - 12/31/1999 FY99: \$1,000,000 Total: \$2,700,000
 Prin. Invest.: E O DOSE
 Tech. Officer: LARC/W WHIGGLOW, JR.
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 987 NORTH CAROLINA A&T STATE UNIVERSITY 7388
 PERFORMANCE MODELING OF A PILOT IN A FREE-FLIGHT MODE
 04/10/1997 - 04/30/1999 FY99: \$0 Total: \$154,000
 Prin. Invest.: C A NTUEN
 Tech. Officer: ARC/R K DISMAKES
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 3 576 NORTH CAROLINA A&T STATE UNIVERSITY 7389
 AEROTHERMO STRUCTURAL ANALYSIS OF LOW COST COMPOSITE
 NOZZLE/INLET COMPONENTS
 09/19/1997 - 06/30/2000 FY99: \$0 Total: \$499,494
 Prin. Invest.: K N SHIVAKUMAR, D SREE
 Tech. Officer: GRC/D R REDDY
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 4 105 NORTH CAROLINA A&T STATE UNIVERSITY 7390
 ON THE PREVIEWED CONTROL ACTION FOR AIRCRAFT FLYING QUALITIES
 07/25/1996 - 07/31/1999 FY99: \$0 Total: \$100,000
 Prin. Invest.: D HOMAI FAR
 Tech. Officer: DFRC/R K BOGUE
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 349 NORTH CAROLINA A&T STATE UNIVERSITY 7391
 INTEGRATION OF NASA RESEARCH INTO UNDERGRADUATE EDUCATION
 IN MATHEMATICS/SCIENCE, ENGINEERING AND TECHNOLOGY
 06/29/1998 - 06/30/2003 FY99: \$500,000 Total: \$1,000,000
 Prin. Invest.: A D KELKAR
 Tech. Officer: GSFC/B WHITE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 1 52119 NORTH CAROLINA A&T STATE UNIVERSITY 7392
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP) URM&D FOCUS
 06/29/1995 - 06/30/1998 FY99: -\$1,939 Total: \$64,061
 Prin. Invest.: M A WALDEN
 Tech. Officer: LARC/J JUANG
 CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 1 52178 NORTH CAROLINA A&T STATE UNIVERSITY 7393
 GRADUATE STUDENT RESEARCHERS PROGRAM
 09/12/1997 - 09/11/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: F VAINSTEIN, R P WILSON
 Tech. Officer: LARC/S E WOODARD, LARC/J N JUANG
 CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 2 52201 NORTH CAROLINA A&T STATE UNIVERSITY 7394
 RONALD E MCNAIR GRADUATE RESEARCH FELLOWSHIP PROGRAM
 09/14/1995 - 12/31/1998 FY99: \$0 Total: \$970,500
 Prin. Invest.: J C KELLY
 Tech. Officer: ARC/A J HATCH
 CASE Category: 49 - ENGINEERING, OTHER

NGT 4 52409 NORTH CAROLINA A&T STATE UNIVERSITY 7395
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/04/1999 - 07/31/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: S CHANDRA, S WYLIE
 Tech. Officer: DFRC/K GUPTA
 CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 90027 NORTH CAROLINA A&T STATE UNIVERSITY 7396
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH
 02/03/1997 - 08/14/1999 FY99: \$0 Total: \$87,538
 Prin. Invest.: L SHARPE
 Tech. Officer: GSFC/R LAWRENCE
 CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1733 NORTH CAROLINA STATE UNIV. - RALEIGH 7397
 DURABILITY, PERFORMANCE, AND EMISSIONS OF DIESEL ENGINES USING
 CARBON FIBER PISTON AND LINER
 06/15/1995 - 08/14/1998 FY99: -\$108 Total: \$30,440
 Prin. Invest.: E M AFIFY, W L ROBERTS
 Tech. Officer: LARC/G B NORTHAM, LARC/K RIVERS
 CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1752 NORTH CAROLINA STATE UNIV. - RALEIGH 7398
 REMOTE SENSING OF TROPOSPHERIC CARBON MONOXIDE DATA A COM-
 PARISON AND RADIATIVE TRANSFER STATION
 09/12/1995 - 09/12/1998 FY99: -\$1 Total: \$148,337
 Prin. Invest.: S RAMAR Prin. Invest.: NONE
 Tech. Officer: LARC/Y CONNORS
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1819 NORTH CAROLINA STATE UNIV. - RALEIGH 7399
 PASSIVE PNEUMATIC CONTROL ON AIRCRAFT AFTERBODY
 03/13/1996 - 09/12/1998 FY99: -\$141 Total: \$71,860
 Prin. Invest.: D D CHOKANI, S L KRAUSHAAR
 Tech. Officer: LARC/L S BANGERT
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1829 NORTH CAROLINA STATE UNIV. - RALEIGH 7400
 ACTIVE CONTROL OF CAVITY NOISE-EXPERIMENT AND COMPUTATION
 04/09/1996 - 04/08/1999 FY99: \$22,411 Total: \$139,538
 Prin. Invest.: N D CHOKANI
 Tech. Officer: LARC/R W WLEZIEN
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1981 NORTH CAROLINA STATE UNIV. - RALEIGH 7401
 CRACK TURNING MECHANICS OF COMPOSITE WING SKIN PANELS
 12/17/1997 - 12/31/1999 FY99: \$128,782 Total: \$248,183
 Prin. Invest.: F G YUAN
 Tech. Officer: LARC/C C POE, LARC/I S RAJU
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1991 NORTH CAROLINA STATE UNIV. - RALEIGH 7402
 STUDY OF HIGH LIFT CONFIGURATIONS
 01/12/1998 - 01/11/2001 FY99: \$50,000 Total: \$115,001
 Prin. Invest.: H A HASSAN
 Tech. Officer: LARC/R D JOSLIN
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2086 NORTH CAROLINA STATE UNIV. - RALEIGH 7403
 AN INVESTIGATION OF TERMINAL GUIDANCE AND CONTROL TECHNIQUES
 FOR A ROBOTIC MARS LANDER
 07/14/1998 - 05/15/1999 FY99: \$0 Total: \$29,948
 Prin. Invest.: G D WALBERG, B BIRGE
 Tech. Officer: LARC/R D BRAUN, LARC/E M QUEEN
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 1 2216 NORTH CAROLINA STATE UNIV. - RALEIGH 7404
 ALGORITHMIC ENHANCEMENTS FOR THE VULCAN NAVIER-STOKES
 SOLVER
 08/09/1999 - 06/30/2002 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: J R EDWARDS
 Tech. Officer: LARC/J A WHITE, LARC/J P DRUMMOND
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2222 NORTH CAROLINA STATE UNIV. - RALEIGH 7405
 AN INVESTIGATION OF TERMINAL GUIDANCE & CONTROL TECHNIQUES
 FOR A ROBOTIC MARS LANDER
 08/06/1999 - 05/15/2000 FY99: \$15,000 Total: \$15,000
 Prin. Invest.: G O WALBERG, B K BIRGE
 Tech. Officer: LARC/E M QUEEN, LARC/R W POWELL
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 2 1115 NORTH CAROLINA STATE UNIV. - RALEIGH 7406
 VIRTUAL PROTOTYPING FOR CARBON NANOTUBES & THEIR COMPOSI-
 TIONS
 02/14/1997 - 02/29/2000 FY99: \$70,225 Total: \$195,340
 Prin. Invest.: B I YAKOBSON
 Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1119 NORTH CAROLINA STATE UNIV. - RALEIGH 7407
 COMPUTATIONAL STUDY OF NANOMETER-SCALE DEVICE OPERATION &
 ENGINEERING
 02/20/1997 - 09/30/1999 FY99: \$79,906 Total: \$253,912
 Prin. Invest.: D W BRENNER, C K HALL
 Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1281 NORTH CAROLINA STATE UNIV. - RALEIGH 7408
 VISUAL FACTORS AFFECTING PILOT'S JUDGEMENTS OF TRAJECTORY-
 TO-TOUCHDOWN DURING EMERGENCY LANDINGS
 01/11/1999 - 07/31/1999 FY99: \$86,000 Total: \$86,000
 Prin. Invest.: D H MERSHON, C M MAYER
 Tech. Officer: ARC/I BARSHI
 CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 5 2254 NORTH CAROLINA STATE UNIV. - RALEIGH 7409
 THE PHYSICAL FOUNDATIONS OF PARTICLE ACCELERATION BY COLLI-
 SIONLESS SHOCKS IN SPACE
 04/27/1993 - 09/30/1999 FY99: \$0 Total: \$658,789
 Prin. Invest.: D C ELLISON
 Tech. Officer: GSFC/J GREBOWSKY, GSFC/J D BOHLIN
 CASE Category: 13 - PHYSICS

NAG 5 2844 NORTH CAROLINA STATE UNIV. - RALEIGH 7410
 X-RAY EMISSION AND DYNAMICS OF SUPERNOVA REMNANTS
 12/14/1994 - 12/14/1998 FY99: \$0 Total: \$375,000
 Prin. Invest.: S P REYNOLDS
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3415 NORTH CAROLINA STATE UNIV. - RALEIGH 7411
 THE DETAILED MORPHOLOGY OF G11.2-0.3 (SN 386 AD)
 09/14/1996 - 09/30/1998 FY99: -\$141 Total: \$8,578
 Prin. Invest.: S REYNOLDS
 Tech. Officer: GSFC/R PETRE
 CASE Category: 11 - ASTRONOMY

NAG 5 3743 NORTH CAROLINA STATE UNIV. - RALEIGH 7412
 NASA SPECIALIZED CENTER OF RESEARCH AND TRAINING IN BIOLOGY
 03/19/1997 - 03/14/2000 FY99: \$1,009,296 Total: \$2,612,412
 Prin. Invest.: E DAVIES
 Tech. Officer: GSFC/D P LISKOWSKY
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4802 NORTH CAROLINA STATE UNIV. - RALEIGH 7413
 THE ROLE OF CONVECTION OVER THE GULF OF MEXICO IN STREAM
 INTERACTIONS RESULTING IN RECENT EXTREME EA
 08/09/1997 - 07/31/2000 FY99: \$100,000 Total: \$316,507
 Prin. Invest.: M KAPLAN, NONE
 Tech. Officer: GSFC/A NWGRI
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6520 NORTH CAROLINA STATE UNIV. - RALEIGH 7414
 SEAWIFS DATA COLLECTION, CALIBRATION AND PROCESSING FOR THE
 INDIAN OCEAN
 02/12/1998 - 01/31/2000 FY99: \$52,017 Total: \$102,105
 Prin. Invest.: J MORRISON
 Tech. Officer: GSFC/J CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6586 NORTH CAROLINA STATE UNIV. - RALEIGH 7415
 REFINING REMOTE SENSING ESTIMATES OF NUTRIENT CONCENTRA-
 TIONS BASED ON TEMPERATURE
 11/07/1997 - 10/31/1999 FY99: \$0 Total: \$125,068
 Prin. Invest.: D KAMYKOWSKI
 Tech. Officer: GSFC/J A YODER
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 7153 NORTH CAROLINA STATE UNIV. - RALEIGH 7416
 X-RAY EMISSION AND DYNAMICS OF SUPERNOVA REMNANTS - ATP
 03/31/1998 - 03/14/2000 FY99: \$130,000 Total: \$255,000
 Prin. Invest.: S P REYNOLDS
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7406 NORTH CAROLINA STATE UNIV. - RALEIGH 7417
 DUST DESTRUCTION IN SUPERNOVA REMNANTS - ASCA PROPOSAL
 05/28/1998 - 11/30/1999 FY99: \$0 Total: \$10,499
 Prin. Invest.: K BORKOWSKI
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 7942 NORTH CAROLINA STATE UNIV. - RALEIGH 7418
 A GENERIC DESIGN METHODOLOGY FOR DEVELOPMENT OF HIGH PER-
 FORMANCE REMOTE SENSING SCIENCE DATA PROCES
 01/27/1999 - 01/31/2000 FY99: \$50,000 Total: \$50,000
 Prin. Invest.: C GLOSTER, JR.
 Tech. Officer: GSFC/P S GHUMAN
 CASE Category: 22 - COMPUTER SCIENCE

NAG 5 8215 NORTH CAROLINA STATE UNIV. - RALEIGH 7419
 EDUCATIONAL OUTREACH FOR RESEARCH "PRODUCTION OF ENERGETIC
 PARTICLES AT HELIOSPHERIC SHOCKS". THIS
 03/04/1999 - 04/30/2000 FY99: \$9,975 Total: \$9,975
 Prin. Invest.: D C ELLISON
 Tech. Officer: GSFC/J M GREBOWSKY
 CASE Category: 13 - PHYSICS

NAG 8 1479 NORTH CAROLINA STATE UNIV. - RALEIGH 7420
 R/S GROWTH AND PROPERTIES OF CARBON
 03/19/1998 - 01/31/2002 FY99: \$96,666 Total: \$163,333
 Prin. Invest.: J BERNHOLC
 Tech. Officer: MSFC/C TALLEY
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 1087 NORTH CAROLINA STATE UNIV. - RALEIGH 7421
 INTEGRATED PRESSURE BLADDER-RESTRAINT STRUCTURE FOR
 ADVANCED EXTRAVEHICULAR MOBILITY UNIT
 02/12/1999 - 02/11/2000 FY99: \$39,847 Total: \$39,847
 Prin. Invest.: M H MOHAMAD
 Tech. Officer: JSC/C H LIN
 CASE Category: 47 - METAL & MATERIALS ENGR

NAGW 1331 NORTH CAROLINA STATE UNIV. - RALEIGH 7422
 SPACE ENGINEERING RESEARCH CENTER
 07/12/1988 - 03/31/1999 FY99: \$0 Total: \$11,364,144
 Prin. Invest.: F R DEJARNETTE
 Tech. Officer: HQ/S M WANDER
 CASE Category: 49 - ENGINEERING, OTHER

NAGW 3575 NORTH CAROLINA STATE UNIV. - RALEIGH 7423
 INFLUENCE OF VERTICAL MIXING ON THE SEA WIFS ALGORITHMS
 05/26/1993 - 07/01/1998 FY99: -\$122 Total: \$453,686
 Prin. Invest.: D KAMYKOWSKI, NONE
 Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
 CASE Category: 33 - OCEANOGRAPHY

NAS 1 18944 NORTH CAROLINA STATE UNIV. - RALEIGH 7424
 SAGE III SCIENCE INVESTIGATION SUPPORT; P.I. PROFESSOR SAXENA
 10/06/1989 - 01/31/2005 FY99: \$76,000 Total: \$362,637
 Prin. Invest.: V SAXENA
 Tech. Officer: LARC/G MADDREA
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 1 99097 NORTH CAROLINA STATE UNIV. - RALEIGH 7425
 ENHANCEMENT OF TAPPS FOR AVOSS DEMONSTRATION
 06/03/1999 - 12/01/2000 FY99: \$125,000 Total: \$125,000
 Prin. Invest.: Y L LIN, M L KAPLAN
 Tech. Officer: LARC/F H PROCTOR
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 112 NORTH CAROLINA STATE UNIV. - RALEIGH 7426
 STUDY OF THE TRANSITIONAL FLOW REGIME USING THE MONTE CARLO
 METHODS
 03/10/1987 - 10/31/1998 FY99: -\$1 Total: \$1,491,875
 Prin. Invest.: H A HASSAN
 Tech. Officer: LARC/K SUTTON, LARC/J N MOSS
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 188 NORTH CAROLINA STATE UNIV. - RALEIGH 7427
 NUMERICAL MODELING STUDIES OF WAKE VORTEX TRANSPORT AND
 EVOLUTION WITHIN THE PLANETARY BOUNDARY LAY
 01/11/1994 - 04/06/2000 FY99: \$267,750 Total: \$1,212,751
 Prin. Invest.: Y L LIN, S P ARYA, M L KAPLAN
 Tech. Officer: LARC/F H PROCTOR, LARC/D A HINTON
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 220 NORTH CAROLINA STATE UNIV. - RALEIGH 7428
 AN OPERATIONAL COMPUTATIONAL TERMINAL AREA PBL PREDICTION
 SYSTEM
 01/23/1996 - 09/22/1999 FY99: \$107,315 Total: \$612,019
 Prin. Invest.: Y L LIN, M L KAPLAN
 Tech. Officer: LARC/F H PROCTOR
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 244 NORTH CAROLINA STATE UNIV. - RALEIGH 7429
 CARBON-CARBON ENGINE VALVE DEVELOPMENT
 09/23/1996 - 09/22/1998 FY99: -\$495 Total: \$23,490
Prin. Invest.: W L ROBERTS, J W DAVID
Tech. Officer: LARC/G B NORTHAM, LARC/P O RANSONE
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 1 335 NORTH CAROLINA STATE UNIV. - RALEIGH 7430
 DETAILED MEASUREMENTS IN CAVITY SHEAR LAYER WITH OSCILLATORY
 BLOWING CONTROL
 04/09/1999 - 01/31/2000 FY99: \$28,291 Total: \$28,291
Prin. Invest.: N CHOKANI
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 8 95 NORTH CAROLINA STATE UNIV. - RALEIGH 7431
 FUNDAMENTAL ASPECTS OF VAPOR DEPOSITION AND ETCHING UNDER
 DIFFUSION CONTROLLED TRANSPORT
 05/31/1996 - 08/31/2000 FY99: \$125,000 Total: \$650,133
Prin. Invest.: K J BACHMANN
Tech. Officer: MSFC/S SPEARMAN, MSFC/J GRISHAM
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 159 NORTH CAROLINA STATE UNIV. - RALEIGH 7432
 APPLICATION OF REMOTE SENSING TECHNOLOGIES IN THE FOREST SEC-
 TOR
 10/28/1998 - 10/27/2003 FY99: \$100,000 Total: \$100,000
Prin. Invest.: R ABT
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 10030 NORTH CAROLINA STATE UNIV. - RALEIGH 7433
 UNIVERSITY SPACE ENGINEERING RESEARCH CENTER GRADUATE
 RESEARCH ASSISTANTSHIPS
 12/09/1994 - 03/31/1999 FY99: -\$53,101 Total: \$370,372
Prin. Invest.: F R DEJARNETTE
Tech. Officer: HQ/V BITTINGER
CASE Category: 49 - ENGINEERING, OTHER

NGT 1 52125 NORTH CAROLINA STATE UNIV. - RALEIGH 7434
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 05/15/1996 - 12/31/1999 FY99: \$0 Total: \$66,001
Prin. Invest.: L H LEE, E M AFIFY
Tech. Officer: LARC/G B NORTHAM, LARC/P O RANSONE
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 1 52164 NORTH CAROLINA STATE UNIV. - RALEIGH 7435
 GRADUATE STUDENT RESEARCH PROGRAM
 08/04/1997 - 08/24/1999 FY99: \$0 Total: \$44,001
Prin. Invest.: O J MYERS
Tech. Officer: LARC/H N ZUMBRUN, LARC/M G FLECK
CASE Category: 46 - MECHANICAL ENGR

NGT 1 52172 NORTH CAROLINA STATE UNIV. - RALEIGH 7436
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/30/1997 - 06/30/2000 FY99: \$32,000 Total: \$54,001
Prin. Invest.: F R DEJARNETTE, K E HARWELL
Tech. Officer: LARC/H N HAMILTON, LARC/E V ZOBY
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52177 NORTH CAROLINA STATE UNIV. - RALEIGH 7437
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/03/1997 - 09/02/1999 FY99: \$0 Total: \$44,001
Prin. Invest.: H A HASSAN
Tech. Officer: LARC/S P WILKINSON
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52183 NORTH CAROLINA STATE UNIV. - RALEIGH 7438
 GRADUATE STUDENTS RESEARCHERS PROGRAM (GSRP)
 08/31/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: M SMITH
Tech. Officer: LARC/B E ANDERSON, LARC/V S CONNORS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 1 52196 NORTH CAROLINA STATE UNIV. - RALEIGH 7439
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/22/1998 - 06/30/2000 FY99: \$22,000 Total: \$32,001
Prin. Invest.: M L JOYNER, H T BANKS
Tech. Officer: LARC/W P WINFREE, LARC/R A WINCHESKI
CASE Category: 21 - MATHEMATICS

NGT 5 40 NORTH CAROLINA STATE UNIV. - RALEIGH 7440
 THIS AGREEMENT IS FOR A GRADUATE RESEARCH ASSISTANT DORWIN
 BLACK, PHD STUDENT IN NUCLEAR ENGINEERING
 06/19/1997 - 09/30/1997 FY99: -\$1,646 Total: \$3,854
Prin. Invest.: F DEJARNETTE, NONE
Tech. Officer: GSFC/R AVANT
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 65 NORTH CAROLINA STATE UNIV. - RALEIGH 7441
 GSRP TRAINING GRANT - KRISTY DYER - THERMAL AND NON-THERMAL
 PHYSICS OF COOLING SUPERNOVA REMNANTS
 05/27/1998 - 08/14/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: S O REYNOLDS
Tech. Officer: GSFC/M S BURRELL
CASE Category: 13 - PHYSICS

NGT 5 30054 NORTH CAROLINA STATE UNIV. - RALEIGH 7442
 CONSTRAINING CARBON MONOXIDE SOURCES BY MODELING ITS STABLE
 ISOTOPES
 10/24/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: D REICHLER
Tech. Officer: GSFC/A GHASSEM
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30192 NORTH CAROLINA STATE UNIV. - RALEIGH 7443
 WATER, HEAT AND SALT BUDGET IN THE NORTHERN INDIAN OCEAN/STU-
 DENT: WEI SHI
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J M MORRISON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40011 NORTH CAROLINA STATE UNIV. - RALEIGH 7444
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATION COLLEGE
 AND FELLOWSHIP PROGRAM.
 01/30/1997 - 02/28/2000 FY99: \$256,250 Total: \$717,500
Prin. Invest.: F R DEJARNETTE
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NORTH CAROLINA

NASA'S UNIVERSITY PROGRAM

NGT 5 70001 NORTH CAROLINA STATE UNIV. - RALEIGH 7445
 GRADUATE STUDENT RESEARCH PROGRAM - STUDENTS: FON ELLIS
 08/25/1997 - 07/31/1998 FY99: -\$33 Total: \$16,467
 Prin. Invest.: VOUK
 Tech. Officer: GSFC/M STOUSENERGER
 CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6097 SAINT AUGUSTINE'S COLLEGE 7446
 PACE/MSET AWARD
 08/19/1997 - 08/14/1999 FY99: \$0 Total: \$200,000
 Prin. Invest.: Y M COSTEN
 Tech. Officer: GSFC/M STOUTSENBERGER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90059 SHAW UNIVERSITY 7447
 UNDERGRADUATE STUDENT AWARD FOR RESEARCH (USAR)
 03/07/1997 - 09/30/1999 FY99: \$0 Total: \$120,000
 Prin. Invest.: M CLAYTON
 Tech. Officer: GSFC/R LAWRENCE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1188 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7448
 BONE MATRIX CHANGES DURING SKELETAL UNLOADING & RE LOADING
 03/18/1998 - 10/31/1999 FY99: \$163,391 Total: \$233,391
 Prin. Invest.: M YAMAUCHI, W J GRZESKI
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3100 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7449
 RADIATIVE PHYSICS OF THE SOFT GAMMA REPEATERS
 10/11/1995 - 10/14/1999 FY99: \$0 Total: \$99,000
 Prin. Invest.: A C THOMPSON
 Tech. Officer: GSFC/D WEST
 CASE Category: 22 - COMPUTER SCIENCE

NAG 5 3946 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7450
 PHYSICAL & OPTICAL PROPERTIES OF LABORATORY GENERAL APPLICATIONS TO STRATOSPHERIC CHEMISTRY
 02/21/1997 - 12/31/1999 FY99: \$94,966 Total: \$284,898
 Prin. Invest.: R E MILLER
 Tech. Officer: GSFC/P A DECOLA
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6278 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7451
 GREENHOUSE GAS (N2O, CH4) EXCHANGE AND N CYCLING D FERTILIZED (FACE) TEMPERATE FOREST
 09/12/1997 - 02/29/2000 FY99: \$36,430 Total: \$168,172
 Prin. Invest.: S C WHALEN
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6499 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7452
 POPULATION-ENVIRONMENT INTERACTIONS: AN INTEGRATED PROGRAM OF RESEARCH, INSTRUCTION, AND TRAINING
 11/18/1997 - 07/31/1999 FY99: \$0 Total: \$374,000
 Prin. Invest.: S WALSH
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6583 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7453
 IMPROVED AREA ESTIMATES FOR LAND COVER AND LAND-USE VERIFICATION CHANGE FROM LOW SPATIAL RESOLUTION REMOTE SENSING
 10/31/1997 - 09/30/1999 FY99: \$0 Total: \$195,421
 Prin. Invest.: A MOODY
 Tech. Officer: GSFC/D WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1148 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7454
 EVALUATION OF CRYSTAL GROWTH
 08/03/1995 - 02/28/1999 FY99: \$59,709 Total: \$656,649
 Prin. Invest.: A WITT
 Tech. Officer: MSFC/M PURVEY
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1580 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7455
 QUANTITATIVE, MULTIVARIATE METHOD/PRE-FLIGHT OPTIMIZATION, & POST-FLIGHT EVALUATION OF MACROCRYSTAL GROWTH
 02/04/1999 - 11/30/2002 FY99: \$144,989 Total: \$144,989
 Prin. Invest.: C W CARTER, JR.
 Tech. Officer: MSFC/B GUYNES
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 3946 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7456
 BIOCHEMICAL CHANGES OF BONE IN A MODEL OF WEIGHTLESSNESS
 04/20/1994 - 09/30/1997 FY99: -\$2,433 Total: \$399,567
 Prin. Invest.: M YAMAUCHI
 Tech. Officer: HQ/F M SULZMAN
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5288 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7457
 CARBON NANOTUBE-POLYMER COMPOSITES: FABRICATION & PROPERTIES
 08/13/1998 - 07/31/1999 FY99: \$0 Total: \$30,000
 Prin. Invest.: O ZHOU
 Tech. Officer: ARC/R L JAFFE, ARC/M MEYAPPAN
 CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 5291 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7458
 CARBON NANOTUBE BASED QUANTUM DEVICES
 08/20/1998 - 09/14/1999 FY99: \$24,000 Total: \$30,000
 Prin. Invest.: J LU
 Tech. Officer: ARC/R L JAFFE, ARC/M MEYAPPAN
 CASE Category: 47 - METAL & MATERIALS ENGR

NCC 5 295 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7459
 AGRICULTURAL COLONIZATION ON THE ECUADORIAN AMAZON: POPULATION, BIOPHYSICAL AND GEOGRAPHICAL FACTORS
 06/12/1998 - 12/31/1999 FY99: \$162,983 Total: \$458,122
 Prin. Invest.: R BILSBORROW
 Tech. Officer: GSFC/D DEERING
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 337 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7460
 RADON-222 AND STABLE CARBON ISOTOPE TRACING OF CARBON EXCHANGE AND TRACE GAS FLUXES IN OLD GROWTH
 06/17/1998 - 12/31/1999 FY99: \$196,247 Total: \$370,131
 Prin. Invest.: C S MARTENS
 Tech. Officer: GSFC/D W DEERING
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 2 52247 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7461
 SYNTHESIS & PROPERTIES OF CARBON NANOTUBES & CARBON NANOTUBE INTERCALATION COMPOUNDS
 08/19/1998 - 08/14/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: Q ZHOU
Prin. Invest.: NONE
Tech. Officer: ARC/R L JAFFE
 CASE Category: 47 - METAL & MATERIALS ENGR

NGT 2 52254 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7462
 CMOS SMART SENSORS FOR TRACKING IN NATURAL ENVIRONMENTS
 07/19/1999 - 07/14/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: G BISHOP
Tech. Officer: ARC/H THOMAS, ARC/S LAU
 CASE Category: 22 - COMPUTER SCIENCE

NGT 5 30177 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7463
 THE MIGRATION ORIGINS OF DEFORESTATION IN A PROTECTED AREA: COLONIZATION, CLEAR-CUTTING, AND CORN IN
 08/12/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: T M WHITMORE
Tech. Officer: GSFC/L SMITH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8114 UNIVERSITY OF NORTH CAROLINA AT WILMINGTON 7464
 HIGH-TROPHIC LEVEL ECOSYSTEM RESPONSE TO CLIMATE CHANGE IN THE ANTARCTIC PENINSULA
 01/25/1999 - 01/31/2000 FY99: \$150,350 Total: \$150,350
Prin. Invest.: S D EMSLIE
Tech. Officer: GSFC/J W CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1314 UNIVERSITY OF NORTH CAROLINA, CHARLOTTE 7465
 RESEARCH JOVE
 01/22/1997 - 08/31/2000 FY99: \$17,500 Total: \$134,500
Prin. Invest.: R D FORSYTHE, P WANG, S E MARSHALL
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1514 UNIVERSITY OF NORTH CAROLINA, CHARLOTTE 7466
 VARIABILITY & PREDICTABILITY OF LAND-ATMOSPHERE INTERACTIONS: OBSERVATIONAL AND MODELING STUDIES
 06/02/1998 - 05/31/2001 FY99: \$50,257 Total: \$87,963
Prin. Invest.: S MARSHALL
Tech. Officer: MSFC/J ARNOLD
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1203 WAKE FOREST UNIVERSITY 7467
 FOCUS AS A MODEL SYSTEM TO STUDY THE ROLE OF SUXIN TRANSPORT & THE ACTIN CYTOSKELETON IN GRAVITY...
 04/06/1998 - 09/30/1999 FY99: \$135,326 Total: \$194,597
Prin. Invest.: G K MUDAAY
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3968 WAKE FOREST UNIVERSITY 7468
 DIETARY OXALATE AND STONE RISK
 03/11/1997 - 02/28/1999 FY99: \$0 Total: \$171,161
Prin. Invest.: R P HOLMES
Tech. Officer: GSFC/VSCHNEIDER
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 3 2011 WINSTON-SALEM STATE UNIVERSITY 7469
 PARALLEL OBJECT-ORIENTED PROGRAMMING IN NETWORK ENVIRONMENT
 02/21/1997 - 02/23/2000 FY99: \$0 Total: \$94,561
Prin. Invest.: A RADENSKI
Tech. Officer: GRC/G FOLLEN
 CASE Category: 22 - COMPUTER SCIENCE

NAG 8 1099 WINSTON-SALEM STATE UNIVERSITY 7470
 JOVE
 10/18/1994 - 02/25/2000 FY99: \$20,000 Total: \$107,000
Prin. Invest.: F LEE, E J JONES
Tech. Officer: MSFC/F SIX
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NORTH DAKOTA

NAG 8 1007 NORTH DAKOTA STATE UNIVERSITY 7471
 JOVE
 11/19/1993 - 09/30/1998 FY99: \$0 Total: \$152,767
Prin. Invest.: P HAMMOND, D KURTZE, A UNGAR
Tech. Officer: MSFC/F SIX
 CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 5209 NORTH DAKOTA STATE UNIVERSITY 7472
 REFINEMENT OF A RAT AORTIC BLOOD FLOWMETER
 04/07/1997 - 07/31/1998 FY99: \$0 Total: \$29,917
Prin. Invest.: D EWERT
Tech. Officer: ARC/J HINES
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 1 52159 NORTH DAKOTA STATE UNIVERSITY 7473
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/27/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M SOUCEK, C R WOLD
Tech. Officer: LARC/R PATER
 CASE Category: 11 - ASTRONOMY

NGT 4 52411 NORTH DAKOTA STATE UNIVERSITY 7474
 ADAPTIVE MULTISCALE ALGORITHMS
 05/11/1999 - 07/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: Y XU, W K PERRIZO
Tech. Officer: DFRC/K GUPTA
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 6088 TURTLE MOUNTAIN COMMUNITY COLLEGE 7475
 RECRUITMENT AND RETENTION OF INDIANS IN SCIENCE AND
 08/11/1997 - 11/30/1999 FY99: \$29,335 Total: \$51,440
Prin. Invest.: S KARNAWAT
Tech. Officer: GSFC/P SAKIMOTO
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1706 UNIVERSITY OF NORTH DAKOTA 7476
 ANALYSIS OF CIRRUS CLOUD MICROPHYSICAL DATA AND ANVIL CIRRUS OBSERVATIONS
 04/17/1995 - 08/31/1998 FY99: -\$6 Total: \$81,994
Prin. Invest.: M R POELLOT
Tech. Officer: LARC/D S MCDUGAL
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NORTH DAKOTA

NASA'S UNIVERSITY PROGRAM

NAG 3 1829 UNIVERSITY OF NORTH DAKOTA 7477
 AUTOMATED MESHING ANALYSIS OF SPIRAL BEVEL GEARS
 04/02/1996 - 04/01/1999 FY99: \$0 Total: \$62,844
 Prin. Invest.: G D BIBEL
 Tech. Officer: GRC/R F HANDSCHUH, GRC/J J COY
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 1911 UNIVERSITY OF NORTH DAKOTA 7478
 AMERICAN INDIANS INTO COMPUTER SCIENCE & ENGINEERING PROGRAM (AICSE)
 07/08/1996 - 12/21/1999 FY99: \$16,662 Total: \$58,768
 Prin. Invest.: M S ALI, A ALLERY
 Tech. Officer: GRC/D R PLUMER, GRC/S A MERRITT
 CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2094 UNIVERSITY OF NORTH DAKOTA 7479
 ANALYSIS AND MODELING OF TRANSIENT THERMOHYDRAULICS OF CRYOGENIC TRANSFER LINES
 12/12/1997 - 11/30/1998 FY99: \$0 Total: \$33,347
 Prin. Invest.: A R HASAN
 Tech. Officer: GRC/M M HASAN
 CASE Category: 46 - MECHANICAL ENGR

NAG 5 2696 UNIVERSITY OF NORTH DAKOTA 7480
 BRINGING VOLCANO REMOTE SENSING DATA TO CLASSROOMS NATIONAL PARKS AND MONUMENTS
 08/17/1994 - 09/30/1999 FY99: \$0 Total: \$855,487
 Prin. Invest.: C A WOOD
 Tech. Officer: GSFC/F HASLER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3488 UNIVERSITY OF NORTH DAKOTA 7481
 ARE THE UNIDENTIFIED EXTENDED SOURCES WITH NO GALAXY TYPE CLUSTER FIELDS MERGER REMNANTS?
 10/31/1996 - 10/31/1999 FY99: \$0 Total: \$36,571
 Prin. Invest.: M J HENRIKSEN
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3616 UNIVERSITY OF NORTH DAKOTA 7482
 A PUBLIC ACCESS RESOURCE CENTER (PARC) EMPOWERING TO USE EOSDI-IMPLEMENTATION PHASE
 11/22/1996 - 06/30/2000 FY99: \$767,000 Total: \$2,817,000
 Prin. Invest.: G A SEIELSTAD
 Tech. Officer: GSFC/A J TUYAHOV
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6778 UNIVERSITY OF NORTH DAKOTA 7483
 A SATELLITE GROUND STATION FOR RESEARCH, EDUCATION, AND PUBLIC DATA ACCESS
 01/14/1998 - 12/31/1998 FY99: \$0 Total: \$81,648
 Prin. Invest.: G SEIELSTAD
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7546 UNIVERSITY OF NORTH DAKOTA 7484
 THE EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND REGIONS
 06/22/1998 - 06/15/1999 FY99: \$90,270 Total: \$19,137
 Prin. Invest.: T L MOTE
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7950 UNIVERSITY OF NORTH DAKOTA 7485
 CO2 BUDGET AND RECTIFICATION AIRBORNE STUDY-NORTH AMERICA (COBRA-NA)
 12/21/1998 - 12/14/1999 FY99: \$15,250 Total: \$15,250
 Prin. Invest.: J L STITH
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8681 UNIVERSITY OF NORTH DAKOTA 7486
 BEYOND THE CUTTING EDGE: INNOVATIVE INTERNET EDUCATION TECHNIQUES
 07/23/1999 - 07/14/2000 FY99: \$100,000 Total: \$100,000
 Prin. Invest.: C WOOD
 Tech. Officer: GSFC/N LAL
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 99006 UNIVERSITY OF NORTH DAKOTA 7487
 NORTHERN GREAT PLAINS REGIONAL EARTH SCIENCE APPLICATIONS CENTER
 03/01/1999 - 02/28/2002 FY99: \$1,720,000 Total: \$1,720,000
 Prin. Invest.: P R ZIMMERMAN
 Tech. Officer: SSC/C HILL
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 193 UNIVERSITY OF NORTH DAKOTA 7488
 A MULTI-USE AIRBORNE RESEARCH FACILITY
 05/15/1997 - 04/30/2000 FY99: \$516,182 Total: \$1,298,032
 Prin. Invest.: M POELLOT
 Tech. Officer: GSFC/C YUHAS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 310 UNIVERSITY OF NORTH DAKOTA 7489
 A PUBLIC ACCESS RESOURCE CENTER (PARC) EMPOWERING THE GENERAL PUBLIC TO USE EOSDI (PHASE III-OPERATIONS)
 04/11/1998 - 02/28/2001 FY99: \$798,000 Total: \$1,128,000
 Prin. Invest.: G SEIELSTAD
 Tech. Officer: GSFC/A TUYAHOV
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 399 UNIVERSITY OF NORTH DAKOTA 7490
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/14/1999 - 04/30/2000 FY99: \$225,000 Total: \$225,000
 Prin. Invest.: C WOOD
 Tech. Officer: GSFC/D DETROYE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40034 UNIVERSITY OF NORTH DAKOTA 7491
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.
 02/13/1997 - 02/29/2000 FY99: \$256,250 Total: \$682,500
 Prin. Invest.: C A WOOD
 Tech. Officer: GSFC/L KEFFER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

OHIO

NCC 3 425 BALDWIN - WALLACE COLLEGE 7492
 COMBUSTION, FLUIDS, AND MATERIALS EXPERIMENTS IN A REDUCED GRAVITY ENVIRONMENT
 07/24/1995 - 07/23/1998 FY99: -\$85,233 Total: \$66,987
Prin. Invest.: R L WALLIS
Tech. Officer: GRC/S M NUSSBAUM
CASE Category: 49 - ENGINEERING, OTHER

NAS 3 99202 BOWLING GREEN STATE UNIVERSITY 7493
 PURCHASE OF DYNAMIC ELECTRIC MOTOR LOAD SIMULATOR
 09/24/1999 - 02/10/2000 FY99: \$134,000 Total: \$134,000
Prin. Invest.: S BALLARD
Tech. Officer: GRC/J L DOLCE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1333 CASE WESTERN RESERVE UNIVERSITY 7494
 DISCRETE FILEDS FOR AIR TRAFFIC MANAGEMENT
 07/01/1999 - 10/31/1999 FY99: \$17,944 Total: \$17,944
Prin. Invest.: M S BRANICKY
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1356 CASE WESTERN RESERVE UNIVERSITY 7495
 EFFECTS OF MICROGRAVITY ON ZEBRAFISH VESTIBULAR DEVELOPMENT
 07/23/1999 - 12/31/1999 FY99: \$57,900 Total: \$57,900
Prin. Invest.: S J MOORMAN
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1046 CASE WESTERN RESERVE UNIVERSITY 7496
 MODELING OF SOLID FUEL COMBUSTION IN VERY LOW-SPEED OXYGEN STREAMS
 05/18/1989 - 07/31/1998 FY99: \$0 Total: \$1,011,518
Prin. Invest.: J S TIEN
Tech. Officer: GRC/J A SALZMAN
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1568 CASE WESTERN RESERVE UNIVERSITY 7497
 SURFACE TENSION DRIVEN CONVECTION EXPERIMENTS - 2
 02/14/1994 - 10/14/1998 FY99: -\$6,920 Total: \$1,396,255
Prin. Invest.: S OSTRACH, Y KAMOTANI
Tech. Officer: GRC/A D PLINE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1868 CASE WESTERN RESERVE UNIVERSITY 7498
 INDUSTRIAL PROCESSES INFLUENCED BY GRAVITY
 05/09/1996 - 05/08/2000 FY99: \$100,000 Total: \$362,775
Prin. Invest.: S OSTRACH, Y KAMOTANI
Tech. Officer: GRC/A D PLINE, GRC/N R HALL
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1913 CASE WESTERN RESERVE UNIVERSITY 7499
 BUBBLE GENERATION IN A FLOWING LIQUID MEDIUM & RESULTING TWO-PHASE FLOW IN MICROGRAVITY
 07/10/1996 - 06/30/2000 FY99: \$96,000 Total: \$292,985
Prin. Invest.: Y KAMOTANI, J OSTRACH, J KADAMBI
Tech. Officer: GRC/D F CHAO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2096 CASE WESTERN RESERVE UNIVERSITY 7500
 DISTRIBUTED MULTI-SENSORY ELECTRIC FIELD TEMPERATURE & HAZARDOUS GASES DETECTION FOR FIRE PREVENTION
 12/16/1997 - 05/06/1999 FY99: -\$2 Total: \$17,951
Prin. Invest.: M TABIB-AZAT
Tech. Officer: GRC/G ADAMOVSKY
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2110 CASE WESTERN RESERVE UNIVERSITY 7501
 NOVEL PIV TECHNIQUE FOR PLANAR PARTICLE SIZE AND VELOCITY MEASUREMENTS FOR SPRAY DIAGNOSTICS
 01/08/1998 - 10/31/2000 FY99: \$74,988 Total: \$149,988
Prin. Invest.: J R KADAMBI
Tech. Officer: GRC/M P WERNET
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2131 CASE WESTERN RESERVE UNIVERSITY 7502
 EVALUATION OF SUB-SURFACE DAMAGE IN SURFACE PREPARATION OF SIC WAFERS
 02/25/1998 - 05/31/1999 FY99: \$30,000 Total: \$80,000
Prin. Invest.: P PIROUZ
Tech. Officer: GRC/J A POWELL
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2160 CASE WESTERN RESERVE UNIVERSITY 7503
 STABILITY LIMITS AND DYNAMICS OF NONAXISYMMETRIC LIQUID BRIDGES
 04/24/1998 - 05/31/2000 FY99: \$119,742 Total: \$198,922
Prin. Invest.: I D ALEXANDER
Tech. Officer: GRC/J C DUH, GRC/B S SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2170 CASE WESTERN RESERVE UNIVERSITY 7504
 MODELING OF ICE INFORMATION ON SWEEP WING LEADING EDGES
 05/29/1998 - 03/25/1999 FY99: -\$57 Total: \$27,597
Prin. Invest.: E RESHOTKO
Tech. Officer: GRC/M G POTAPCZUK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2204 CASE WESTERN RESERVE UNIVERSITY 7505
 ESTABLISH THE GLENNAN MICROSYSTEM INITIATIVE ESTABLISH THE GLENNAN MICROSYSTEM INITIATIVE
 09/25/1998 - 11/30/1999 FY99: \$1,250,000 Total: \$1,750,000
Prin. Invest.: M MEHREGANY
Tech. Officer: GRC/L G MATUS
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2210 CASE WESTERN RESERVE UNIVERSITY 7506
 THE FEASIBILITY OF APPLYING TOMOGRAPHIC TECHNIQUES IN THE ICING RESEARCH WIND TUNNEL
 11/19/1998 - 12/30/1999 FY99: \$73,894 Total: \$73,894
Prin. Invest.: S H IZEN
Tech. Officer: GRC/C R MERCER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 3 2238 CASE WESTERN RESERVE UNIVERSITY 7507
 IDENTIFICATION OF GRAVITY-RELATED EFFECTS ON CRYSTAL GROWTH
 FROM MELTS WITH AN IMISCIBILITY GAP
 02/24/1999 - 08/04/2000 FY99: \$70,067 Total: \$70,067
Prin. Invest.: A SAYIR
Tech. Officer: GRC/B S SINGH
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2239 CASE WESTERN RESERVE UNIVERSITY 7508
 CANDLE FLAMES IN MICROGRAVITY CANDLE FLAMES IN MICROGRAVITY
 02/24/1999 - 02/02/2000 FY99: \$42,375 Total: \$42,375
Prin. Invest.: J S TIEN
Tech. Officer: GRC/D L DIETRICH
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2243 CASE WESTERN RESERVE UNIVERSITY 7509
 ADVANCEMENT OF TRANSDUCER SENSOR SYSTEM FOR CRACK CON-
 TAMINATION DETECTION
 03/12/1999 - 12/02/1999 FY99: \$40,000 Total: \$40,000
Prin. Invest.: D HAZONY
Tech. Officer: GRC/D NG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2286 CASE WESTERN RESERVE UNIVERSITY 7510
 MODELING OF ICE FORMATION ON SWEPT WING LEADING EDGES
 08/20/1999 - 02/03/2000 FY99: \$17,186 Total: \$17,186
Prin. Invest.: E RESHOTKO
Tech. Officer: GRC/M POTAPCZUK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 2559 CASE WESTERN RESERVE UNIVERSITY 7511
 MICROMACHINED TUNABLE ETALONS AND ETALON ARRAYS
 03/24/1994 - 09/30/1999 FY99: \$0 Total: \$76,320
Prin. Invest.: M MEHREGANY
Tech. Officer: GSFC/D DEMING, GSFC/D REUTER
CASE Category: 11 - ASTRONOMY

NAG 5 6715 CASE WESTERN RESERVE UNIVERSITY 7512
 AN ELECTRON MICROSCOPY SURVEY OF CARBONATE-BEARING
 REGIONS OF ALH84001
 12/10/1997 - 11/30/1999 FY99: \$55,000 Total: \$120,000
Prin. Invest.: R HARVEY
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7019 CASE WESTERN RESERVE UNIVERSITY 7513
 THE EVOLUTION OF GALAXIES HARBORING CENTRAL MASSIVE BLACK
 HOLES - ATP
 02/19/1998 - 02/14/2000 FY99: \$117,310 Total: \$155,943
Prin. Invest.: C MIHOS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 8 1270 CASE WESTERN RESERVE UNIVERSITY 7514
 DETERMINATION OF THE SURFACE ENERGY OF LIQUID CRYSTALS
 05/03/1996 - 05/31/2000 FY99: \$70,000 Total: \$245,001
Prin. Invest.: C ROSENBLATT, P L TAYLOR
Tech. Officer: MSFC/C R TALLEY
CASE Category: 13 - PHYSICS

NCC 3 263 CASE WESTERN RESERVE UNIVERSITY 7515
 FLOW VISUALIZATION OF BLADE ROW INTERACTION
 05/08/1992 - 07/13/1998 FY99: -\$6 Total: \$178,165
Prin. Invest.: J R KADAMBF
Tech. Officer: GRC/J J ADAMCZYK, GRC/R J BOYLE
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 350 CASE WESTERN RESERVE UNIVERSITY 7516
 CANDLE FLAMES IN MICROGRAVITY
 06/03/1994 - 12/31/1998 FY99: -\$41 Total: \$308,109
Prin. Invest.: J S TIEN
Tech. Officer: GRC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NCC 3 372 CASE WESTERN RESERVE UNIVERSITY 7517
 A STUDY OF THE MECHANICAL PROPERTIES OF DIRECTIONALLY SOLIDI-
 FIED & CHARACTERIZATION OF HIGH TEMPERATURE
 11/15/1994 - 10/31/2000 FY99: \$281,000 Total: \$1,141,606
Prin. Invest.: A SAYIR
Tech. Officer: GRC/J A DICARLO, GRC/S R LEVINE
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 384 CASE WESTERN RESERVE UNIVERSITY 7518
 EVALUATION OF THE LONG TERM DURABILITY OF MATERIALS FOR
 ADVANCED TURBINES ENGINES
 03/24/1995 - 12/08/1999 FY99: \$101,455 Total: \$481,159
Prin. Invest.: G M MICHAL
Tech. Officer: GRC/R V MINER, GRC/M V NATHAL
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 389 CASE WESTERN RESERVE UNIVERSITY 7519
 PROCESSING, STRUCTURES AND PROPERTIES OF ADVANCED INTERME-
 TALICS AND METAL MATRIX COMPOSITES
 01/10/1995 - 01/20/2000 FY99: \$176,901 Total: \$853,713
Prin. Invest.: G M MICHAL, I E LOCCI
Tech. Officer: GRC/M V NATHAL
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 404 CASE WESTERN RESERVE UNIVERSITY 7520
 CERAMIC PROCESSING
 03/13/1995 - 11/29/1999 FY99: \$343,924 Total: \$1,350,551
Prin. Invest.: J CAWLEY
Tech. Officer: GRC/S LEVINE
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 409 CASE WESTERN RESERVE UNIVERSITY 7521
 THE DEVELOPMENT OF A NOVEL CLASS OF RETAINERLESS/UNIDIREC-
 TION-FIBER COMPOSITE MOMENTUM WHEELS
 04/01/1995 - 02/28/1998 FY99: -\$3,048 Total: \$188,740
Prin. Invest.: J M PRAHL
Tech. Officer: GRC/W R JONES, GRC/M V ZELLER
CASE Category: 46 - MECHANICAL ENGR

NCC 3 460 CASE WESTERN RESERVE UNIVERSITY 7522
 STUDIES AND APPLICATIONS OF COLLOIDAL PHENOMENA USING LASER
 LIGHT SCATTERING IN REDUCED GRAVITY
 03/25/1996 - 06/30/1998 FY99: -\$13 Total: \$201,938
Prin. Invest.: J A MANN JR., R R ANSARI
Tech. Officer: GRC/B S SINGH
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 463 CASE WESTERN RESERVE UNIVERSITY 7523
 MONOLITHIC CU-CR-NB ALLOYS FOR ELEVATED TEMPERATURE HIGH
 HEAT FLUX APPLICATIONS
 04/10/1996 - 12/02/1999 FY99: \$67,498 Total: \$266,335
Prin. Invest.: G M MICHAL, D L ELLIS
Tech. Officer: GRC/R V MINER, GRC/M V NATHAL
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 464 CASE WESTERN RESERVE UNIVERSITY 7524
 THE ROLE OF FIBER-ARCHITECTURE ON THE MECHANICAL PROPERTIES
 OF TITANIUM MATRIX COMPOSITES
 04/11/1996 - 10/03/1999 FY99: \$66,371 Total: \$229,492
Prin. Invest.: R M AIKEN, JR.
Tech. Officer: GRC/S M ARNOLD
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 518 CASE WESTERN RESERVE UNIVERSITY 7525
 A STUDY OF THE TIME-DEPENDENT RESPONSE OF CERAMIC MATERIALS
 01/06/1997 - 10/31/1998 FY99: -\$715 Total: \$176,713
Prin. Invest.: D A GASPARINI, V PANOSTALTSIS
Tech. Officer: GRC/N N NEMETH
CASE Category: 46 - MECHANICAL ENGR

NCC 3 554 CASE WESTERN RESERVE UNIVERSITY 7526
 TIME DEPENDENT NUMERICAL SIMULATIONS OF SOLIDIFICATION PRO-
 CESSES
 04/21/1997 - 02/24/1999 FY99: \$0 Total: \$83,906
Prin. Invest.: P L TAYLOR, G Y ONR
Tech. Officer: GRC/A CHAIT
CASE Category: 13 - PHYSICS

NCC 3 562 CASE WESTERN RESERVE UNIVERSITY 7527
 IGNITION AND FLAME SPREAD OF LIQUID FUEL POOLS
 06/17/1997 - 05/12/2001 FY99: \$0 Total: \$114,456
Prin. Invest.: J S TIEN
Tech. Officer: GRC/J A SALZMAN
CASE Category: 46 - MECHANICAL ENGR

NCC 3 574 CASE WESTERN RESERVE UNIVERSITY 7528
 A PROPOSED RESEARCH ON THE DEVELOPMENT OF COMBINED
 SCHOTKY DIODE & RESISTANCE BASED HYDROGEN SENSORS
 08/25/1997 - 12/07/1997 FY99: -\$2,140 Total: \$77,859
Prin. Invest.: C C LIU
Tech. Officer: GRC/G W HUNTER
CASE Category: 43 - CHEMICAL ENGR

NCC 3 583 CASE WESTERN RESERVE UNIVERSITY 7529
 FATIGUE CRACK GROWTH OF ADVANCED MATERIALS FATIGUE CRACK
 GROWTH OF ADVANCED MATERIALS
 12/16/1997 - 12/01/1998 FY99: -\$15,883 Total: \$107,361
Prin. Invest.: R MULLEN
Tech. Officer: GRC/I TELESMA
CASE Category: 46 - MECHANICAL ENGR

NCC 3 587 CASE WESTERN RESERVE UNIVERSITY 7530
 TIME DEPENDENT NUMERICAL SIMULATIONS OF SOLIDIFICATION PRO-
 CESSES
 01/01/1998 - 12/31/2000 FY99: \$89,552 Total: \$176,925
Prin. Invest.: P L TAYLOR
Tech. Officer: GRC/A CHIT
CASE Category: 13 - PHYSICS

NCC 3 593 CASE WESTERN RESERVE UNIVERSITY 7531
 ELECTRICAL CHARACTERIZATION OF MICROPIPERES AND OTHER DEFECTS
 IN SIC AND GAN USING ELECTRON BEAM INDU
 01/08/1998 - 11/30/1998 FY99: \$0 Total: \$6,890
Prin. Invest.: M TABIB-AZAR
Tech. Officer: GRC/S BAILEY
CASE Category: 45 - ELECTRICAL ENGR

NCC 3 612 CASE WESTERN RESERVE UNIVERSITY 7532
 DEVELOPMENT OF SOLID STATE CO AND CO2 SENSORS FOR FIRE
 PROTECTION APPLICATIONS
 05/08/1998 - 09/30/1998 FY99: \$0 Total: \$24,999
Prin. Invest.: C C LIU
Tech. Officer: GRC/G W HUNTER
CASE Category: 43 - CHEMICAL ENGR

NCC 3 625 CASE WESTERN RESERVE UNIVERSITY 7533
 DEVELOPMENT OF NOVEL CLASS OF RETAINERLESS/UNIDIRECTIONAL
 FIBER COMPOSITE MOMENTUM WHEELS
 06/17/1998 - 01/20/2000 FY99: \$80,000 Total: \$143,164
Prin. Invest.: J M PRAHL
Tech. Officer: GRC/C DELLACORTE
CASE Category: 46 - MECHANICAL ENGR

NCC 3 633 CASE WESTERN RESERVE UNIVERSITY 7534
 COMBUSTION OF SOLID FUEL IN VERY LOW SPEED OXYGEN STREAMS
 06/30/1998 - 09/02/2003 FY99: \$201,000 Total: \$308,710
Prin. Invest.: J S TIEN
Tech. Officer: GRC/K SACKSTEDER
CASE Category: 46 - MECHANICAL ENGR

NCC 3 635 CASE WESTERN RESERVE UNIVERSITY 7535
 ELECTRICAL CHARACTERIZATION OF MICROPIPERES AND OTHER DEFECTS
 IN SIC AND GAN USING ELECTRON BEAM INDU
 07/18/1998 - 06/24/1999 FY99: \$0 Total: \$28,540
Prin. Invest.: D TABIB-AZAR
Tech. Officer: GRC/S BAILEY
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 653 CASE WESTERN RESERVE UNIVERSITY 7536
 A STUDY OF THE TIME-DEPENDENT RESPONSE OF CERAMIC MATERIALS
 11/23/1998 - 11/11/1999 FY99: \$98,741 Total: \$98,741
Prin. Invest.: D A GASPARINI, NONE
Tech. Officer: GRC/N N NEMETH
CASE Category: 46 - MECHANICAL ENGR

NCC 3 658 CASE WESTERN RESERVE UNIVERSITY 7537
 LOW STRETCH DIFFUSION FLAMES LOW STRETCH DIFFUSION FLAMES
 01/12/1999 - 12/08/2002 FY99: \$48,791 Total: \$48,791
Prin. Invest.: J S TIEN
Tech. Officer: GRC/S L OLSON
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 669 CASE WESTERN RESERVE UNIVERSITY 7538
 FLAME SPREADING IN PARTIAL GRAVITY FLAME SPREADING IN PARTIAL
 GRAVITY
 02/03/1999 - 01/03/2003 FY99: \$21,665 Total: \$21,665
Prin. Invest.: J S TIEN
Tech. Officer: GRC/K R SACKSTEDER
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 679 CASE WESTERN RESERVE UNIVERSITY 7539
 DEVELOPMENT OF ADVANCED SENSORS FOR BANTAM VEHICLE APPLICATIONS
 02/24/1999 - 10/17/1999 FY99: \$70,000 Total: \$70,000
 Prin. Invest.: C LUI
 Tech. Officer: GRC/G W HUNTER
 CASE Category: 43 - CHEMICAL ENGR

NCC 3 681 CASE WESTERN RESERVE UNIVERSITY 7540
 THERMO-PHYSICAL PROPERTIES OF MOLTEN SEMICONDUCTORS
 02/24/1999 - 02/17/2002 FY99: \$2,500 Total: \$2,500
 Prin. Invest.: D H MATTHIESEN
 Tech. Officer: GRC/A CHAIT
 CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 701 CASE WESTERN RESERVE UNIVERSITY 7541
 DENTRITIC GROWTH AND COARSENING PHENOMENA IN SOLIDIFICATION
 04/20/1999 - 05/31/2002 FY99: \$75,000 Total: \$75,000
 Prin. Invest.: P L TAYLOR
 Tech. Officer: GRC/A CHAIT
 CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 706 CASE WESTERN RESERVE UNIVERSITY 7542
 DEVELOPMENT OF SOLID STATE CO AND CO2 SENSORS FOR FIRE PROTECTION APPLICATIONS
 05/04/1999 - 09/22/1999 FY99: \$40,000 Total: \$40,000
 Prin. Invest.: C C LIU
 Tech. Officer: GRC/G W HUNTER
 CASE Category: 43 - CHEMICAL ENGR

NCC 3 714 CASE WESTERN RESERVE UNIVERSITY 7543
 RAPID MANUFACTURING MONOLITHIC SILICON NITRIDE THRU-STATE CELLS
 07/12/1999 - 06/02/2000 FY99: \$44,516 Total: \$44,516
 Prin. Invest.: J D CRAWLEY
 Tech. Officer: GRC/J LANG
 CASE Category: 47 - METAL & MATERIALS ENGR

NCC 8 152 CASE WESTERN RESERVE UNIVERSITY 7544
 DIFFUSION PROCESSES IN MOLTEN SEMICONDUCTORS
 06/12/1998 - 03/31/2002 FY99: \$452,000 Total: \$945,110
 Prin. Invest.: D H MATTHIESEN
 Tech. Officer: MSFC/J BRUNSON
 CASE Category: 13 - PHYSICS

NGT 3 52323 CASE WESTERN RESERVE UNIVERSITY 7545
 GRADUATE STUDENT RESEARCHERS PROGRAM
 09/04/1996 - 12/31/1998 FY99: -\$14,192 Total: \$29,808
 Prin. Invest.: I GREBER
 Tech. Officer: GRC/F MONTEGANI
 CASE Category: 46 - MECHANICAL ENGR

NGT 3 52328 CASE WESTERN RESERVE UNIVERSITY 7546
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/10/1997 - 05/31/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: K LOPARO
 Tech. Officer: GRC/F J MONTEGANI
 CASE Category: 49 - ENGINEERING, OTHER

NGT 3 52340 CASE WESTERN RESERVE UNIVERSITY 7547
 PIV DEVELOPMENT FOR SIMULTANEOUS MEASUREMENT OF PARTICLE/DROPLET SIZE AND VELOCITY IN TWO PHASE FLOW
 07/18/1998 - 07/31/1999 FY99: \$0 Total: \$22,000
 Prin. Invest.: J R KADAMBI
 Tech. Officer: GRC/D MONTEGANI
 CASE Category: 46 - MECHANICAL ENGR

NGT 3 52350 CASE WESTERN RESERVE UNIVERSITY 7548
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM
 06/23/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: J S TIEN
 Tech. Officer: GRC/J J MONTEGANI
 CASE Category: 47 - METAL & MATERIALS ENGR

NGT 3 52352 CASE WESTERN RESERVE UNIVERSITY 7549
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM
 06/24/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: J R KADAMBI
 Tech. Officer: GRC/F J MONTEGANI
 CASE Category: 49 - ENGINEERING, OTHER

NGT 5 50064 CASE WESTERN RESERVE UNIVERSITY 7550
 STEADY STATE COMBUSTION OF SIMULATED DROPLETS
 08/28/1997 - 06/30/1998 FY99: \$0 Total: \$22,000
 Prin. Invest.: D DITN
 Tech. Officer: HQ/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 15 CASE WESTERN RESERVE UNIVERSITY 7551
 SUMMER FACULTY FELLOWSHIP
 09/24/1996 - 03/30/1998 FY99: -\$1 Total: \$14,999
 Prin. Invest.: R P HARVEY
 Tech. Officer: JSC/E PRITCHARD
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1463 CENTRAL STATE UNIVERSITY - OHIO 7552
 A STUDY OF EVAPORATION FROM A BINARY MENISCUS IN MICROGRAVITY
 03/04/1993 - 08/31/1998 FY99: -\$8,422 Total: \$670,053
 Prin. Invest.: M M GIRGIS
 Tech. Officer: GRC/J A SALZMAN, GRC/R L THOMPSON
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1517 CENTRAL STATE UNIVERSITY - OHIO 7553
 RESEARCH LABORATORY FOR ENGINEERING & TECHNOLOGY (RELENT)
 08/19/1993 - 09/30/1997 FY99: -\$2,192 Total: \$688,136
 Prin. Invest.: C B OKHIO
 Tech. Officer: GRC/D E LACY
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 3 1379 CLEVELAND STATE UNIVERSITY 7554
 A RATE-ADJUSTING CONGESTION CONTROL SCHEME FOR SATELLITE PACKET SWITCHING NETWORK
 11/04/1992 - 07/18/1998 FY99: \$0 Total: \$189,228
 Prin. Invest.: P CHU
 Tech. Officer: GRC/H KIM
 CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1922 CLEVELAND STATE UNIVERSITY 7555
 TWO-PHASE ANNUAL FLOW IN HELICAL COIL FLOW CHANNEL S IN A
 REDUCED GRAVITY ENVIRONMENT
 07/23/1996 - 07/16/2000 FY99: \$0 Total: \$280,000
Prin. Invest.: E G KESHOCK, C S LIN
Tech. Officer: GRC/B J MOTIL
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2029 CLEVELAND STATE UNIVERSITY 7556
 DEVELOPMENT OF AN OPTIMIZED MULTIDISCIPLINARY SYST EM DESIGN
 TOOL USING TAGUCHI TECHNIQUES & NEURAL
 04/01/1997 - 01/31/2000 FY99: \$0 Total: \$102,000
Prin. Invest.: P P LIN
Tech. Officer: GRC/K JULES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2040 CLEVELAND STATE UNIVERSITY 7557
 FPGA BASED RECONFIGURABLE PACKET SWITCH TEST BED
 04/29/1997 - 07/31/2000 FY99: \$50,386 Total: \$129,907
Prin. Invest.: P P CHU
Tech. Officer: GRC/R E JONES
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2075 CLEVELAND STATE UNIVERSITY 7558
 MINORITY ENGINEERING PROGRAM PIPELINE
 09/17/1997 - 08/31/1999 FY99: \$0 Total: \$35,670
Prin. Invest.: P CHARITY
Tech. Officer: GRC/M L BOROWSKI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2144 CLEVELAND STATE UNIVERSITY 7559
 DEVELOPMENT OF ADVANCED SPACE SOLAR CELLS DEVELOPMENT OF
 ADVANCED SPACE SOLAR CELLS
 04/21/1998 - 09/17/1999 FY99: \$50,000 Total: \$100,000
Prin. Invest.: M FAUR
Tech. Officer: GRC/S G BAILEY
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2197 CLEVELAND STATE UNIVERSITY 7560
 INVESTIGATION IN THE USE OF ULTRASONICS FOR THE DE TERMINATION
 OF ICE THICKNESS ON AIRCRAFT STRUCTUR
 09/04/1998 - 03/30/1999 FY99: \$0 Total: \$21,270
Prin. Invest.: P A BOSEIA
Tech. Officer: GRC/D R LUDWICZAK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2232 CLEVELAND STATE UNIVERSITY 7561
 MAPPING THE POSITION DEPENDENCE OF THE LIQUID WATE R CONTENT
 02/18/1999 - 12/31/1999 FY99: \$7,000 Total: \$7,000
Prin. Invest.: J LOCK
Tech. Officer: GRC/C R MERCER
CASE Category: 13 - PHYSICS

NAG 3 2273 CLEVELAND STATE UNIVERSITY 7562
 THE ECONOMIC IMPACT OF GLENN RESEARCH CENTER THE ECONOMIC
 IMPACT OF GLENN RESEARCH CENTER
 06/23/1999 - 01/10/2000 FY99: \$57,772 Total: \$57,772
Prin. Invest.: Z AUSTRIAN
Tech. Officer: GRC/R C ALEXANDER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2276 CLEVELAND STATE UNIVERSITY 7563
 ENHANCED SPATIAL RESOLUTION OF ULTRASONIC AND THER MAL WAVE
 IMAGING
 07/14/1999 - 11/03/1999 FY99: \$26,000 Total: \$26,000
Prin. Invest.: T NAYFEH
Tech. Officer: GRC/D ROTH
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2296 CLEVELAND STATE UNIVERSITY 7564
 REAL TIME MONITORING SYSTEM
 09/30/1999 - 05/06/2000 FY99: \$29,016 Total: \$29,016
Prin. Invest.: D M KOCHER
Tech. Officer: GRC/D WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1584 CLEVELAND STATE UNIVERSITY 7565
 R/S ACOUSTICALLY ASSISTED BIOREACTOR FOR TERRESTRIAL AND
 MICROGRAVITY APPLICATIONS.
 01/14/1999 - 11/30/2002 FY99: \$136,000 Total: \$136,000
Prin. Invest.: J M BELOVICH
Tech. Officer: MSFC/B GUYNES
CASE Category: 61 - PSYCHOLOGY BIOLOGY

NCC 3 305 CLEVELAND STATE UNIVERSITY 7566
 AN INVESTIGATION OF RELIABILITY MODELS FOR CERAMIC MATRIX COMP
 & THEIR IMPL INTO FINITE ELEM CODES
 06/29/1993 - 06/30/1998 FY99: -\$1 Total: \$214,875
Prin. Invest.: S DUFFY
Tech. Officer: GRC/N NEMETH
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 316 CLEVELAND STATE UNIVERSITY 7567
 NON-DESTRUCTIVE EVALUATION OF ADVANCED MATERIALS F OR HEAT
 ENGINE & SPACE STRUCTURE APPLICATIONS
 08/20/1993 - 11/07/1998 FY99: \$0 Total: \$79,606
Prin. Invest.: J HEMANN
Tech. Officer: GRC/A VARY
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 367 CLEVELAND STATE UNIVERSITY 7568
 A HIGH TEMPERATURE TESTING SYSTEM FOR CERAMIC COMP OSITES
 11/01/1994 - 08/30/1998 FY99: \$0 Total: \$389,009
Prin. Invest.: J HEMANN
Tech. Officer: GRC/F HURWITZ
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 376 CLEVELAND STATE UNIVERSITY 7569
 DONE
 12/15/1994 - 12/10/1999 FY99: \$87,217 Total: \$606,817
Prin. Invest.: J MASNOVI
Tech. Officer: GRC/F I HURWITZ
CASE Category: 12 - CHEMISTRY

NCC 3 393 CLEVELAND STATE UNIVERSITY 7570
 DEVELOPMENT EVALUATION AND MODELING OF ADVANCED CE RAMIC
 FIBERS FOR HIGH TEMPERATURE COMPOSITES
 01/23/1995 - 11/02/1999 FY99: \$144,261 Total: \$536,627
Prin. Invest.: S N TEWARI
Prin. Invest.: NONE
Tech. Officer: GRC/R V MINER
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 415 CLEVELAND STATE UNIVERSITY 7571
 DESIGN ANALYSIS AND MATERIAL MODELING FOR CERAMIC MATRIX COM-
 POSITES
 05/23/1995 - 06/15/1998 FY99: -\$1,554 Total: \$241,464
Prin. Invest.: S F DUFFY, NONE
Tech. Officer: GRC/N N NEMETH
CASE Category: 46 - MECHANICAL ENGR

NCC 3 428 CLEVELAND STATE UNIVERSITY 7572
 PROTEIN CRYSTAL GROWTH AND TRANSPORT PHENOMENA
 08/24/1995 - 11/14/1999 FY99: \$79,250 Total: \$294,265
Prin. Invest.: S N TEWARI
Tech. Officer: GRC/T K GLASGOW
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 433 CLEVELAND STATE UNIVERSITY 7573
 ANALYSIS OF THE USE OF SELECTED MODERN INDUSTRIAL METHODS
 AND PROCESSES IN THE SCIENTIFIC ENVIRONMENT
 09/24/1995 - 09/30/1998 FY99: \$0 Total: \$245,167
Prin. Invest.: D L KRADEVICH
Tech. Officer: GRC/J M MULLINS
CASE Category: 46 - MECHANICAL ENGR

NCC 3 444 CLEVELAND STATE UNIVERSITY 7574
 COATINGS FOR CERAMIC MATRIX COMPOSITES
 01/15/1996 - 01/25/2000 FY99: \$120,992 Total: \$435,397
Prin. Invest.: S N TEWARI
Tech. Officer: GRC/L A GREENBAUER-SENG
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 445 CLEVELAND STATE UNIVERSITY 7575
 MODIFICATION OF ENVIRONMENTAL/THERMAL BARRIER COATINGS FOR
 SILICON-BASED CERAMICS
 01/15/1996 - 11/15/1999 FY99: \$127,220 Total: \$473,488
Prin. Invest.: S N TEWARI
Tech. Officer: GRC/L A GREENBAUER-SENG
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 488 CLEVELAND STATE UNIVERSITY 7576
 DESIGN LIFE METH & COMP ALGOR FOR THE ANALY OF COM P FAB FROM
 CERAMIC BASED MATERIAL SYSTEMS
 07/16/1996 - 12/14/1999 FY99: \$58,237 Total: \$221,572
Prin. Invest.: S F DUFFY
Tech. Officer: GRC/N N NEMETH
CASE Category: 46 - MECHANICAL ENGR

NCC 3 499 CLEVELAND STATE UNIVERSITY 7577
 HIGH TEMPERATURE MECHANICAL BEHAVIOR OF CERAMIC MA TRIX COM-
 POSITES
 09/04/1996 - 11/29/1999 FY99: \$203,714 Total: \$681,708
Prin. Invest.: J HEMANN
Tech. Officer: GRC/J SALEM
CASE Category: 46 - MECHANICAL ENGR

NCC 3 521 CLEVELAND STATE UNIVERSITY 7578
 THE EFFECTS OF MULTIPLE SCATTERING IN PHOTON CORRE LEATION
 SPECTROSCOPY
 12/26/1996 - 11/30/2000 FY99: \$73,000 Total: \$217,000
Prin. Invest.: J A LOCK
Tech. Officer: GRC/A CHAIT
CASE Category: 13 - PHYSICS

NCC 3 522 CLEVELAND STATE UNIVERSITY 7579
 NOVEL MATERIALS WITH TAILORD CHARACTERISTICS FOR S PACE POWER
 AND COMMERCIAL APPLICATIONS
 12/26/1996 - 12/02/1999 FY99: \$127,775 Total: \$290,835
Prin. Invest.: P D HAMBOURGER
Tech. Officer: GRC/S K RUTLEDGE
CASE Category: 13 - PHYSICS

NCC 3 572 CLEVELAND STATE UNIVERSITY 7580
 PERFORMANCE ANALYSIS OF DISTRIBUTED OBJECT-ORIENTED APPLICA-
 TIONS
 08/05/1997 - 03/31/1999 FY99: -\$1,608 Total: \$79,808
Prin. Invest.: J SCOFFER
Tech. Officer: GRC/G FOLLEN
CASE Category: 22 - COMPUTER SCIENCE

NCC 3 573 CLEVELAND STATE UNIVERSITY 7581
 APPLICATION OF AN IRON ADDITIVE IN THIO-ETHER FOR ENHANCED
 VAPOR PHASE LUBRICATION
 09/09/1997 - 03/19/1998 FY99: \$0 Total: \$20,000
Prin. Invest.: E D GRAHAM
Tech. Officer: GRC/W MORALES
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 581 CLEVELAND STATE UNIVERSITY 7582
 ULTRASONIC SCANNER CONTROL AND DATA ACQUISITION
 12/09/1997 - 10/31/1999 FY99: \$120,263 Total: \$216,727
Prin. Invest.: J HEMANN
Tech. Officer: GRC/H KAUTZ
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 582 CLEVELAND STATE UNIVERSITY 7583
 THE DEVELOPMENT OF ENGINEERING TOMOGRAPHY FOR MONO LITHIC
 AND COMPOSITE MATERIALS AND COMPONENTS
 12/09/1997 - 10/31/1999 FY99: \$114,860 Total: \$204,615
Prin. Invest.: J HEMANN
Tech. Officer: GRC/H E KAUTZ
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 585 CLEVELAND STATE UNIVERSITY 7584
 NDE METHODS FOR COMMERCIAL AIRCRAFT ENGINES
 12/16/1997 - 11/13/1998 FY99: \$0 Total: \$94,081
Prin. Invest.: J HEMANN
Tech. Officer: GRC/L KIRALY
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 595 CLEVELAND STATE UNIVERSITY 7585
 SIMULATION AND PERFORMANCE ANALYSIS OF HYBRID SATE LLITE-TER-
 RESTRIAL NETWORKS
 01/12/1998 - 01/10/2000 FY99: \$80,682 Total: \$139,042
Prin. Invest.: V K KONANGI
Tech. Officer: GRC/T M WALLETT, GRC/K B BHASIN
CASE Category: 45 - ELECTRICAL ENGR

NCC 3 606 CLEVELAND STATE UNIVERSITY 7586
 ULTRA-LOW COST ROOM TEMPERATURE SIC THIN FILMS ULTRA-LOW
 COST ROOM TEMPERATURE SIC THINFILMS
 04/20/1998 - 01/03/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: M FAUR
Tech. Officer: GRC/S BAILEY
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 631 CLEVELAND STATE UNIVERSITY 7587
 STUDY OF MAGNETIC DAMPING EFFECTS ON CONVECTION DU RING
 DIRECTIONAL SOLIDIFICATION
 06/26/1998 - 06/07/2000 FY99: \$45,000 Total: \$87,720
Prin. Invest.: D N TEWARI
Tech. Officer: GRC/H C DE GROH
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 644 CLEVELAND STATE UNIVERSITY 7588
 IN-SITU SPECTROSCOPIC EXAMINATION OF MODEL LURICAN TS SYSTEMS
 AT HIGH PRESSURE
 08/01/1998 - 07/31/1999 FY99: \$0 Total: \$5,900
Prin. Invest.: D W BALL
Tech. Officer: GRC/W MORALES
CASE Category: 43 - CHEMICAL ENGR

NCC 3 646 CLEVELAND STATE UNIVERSITY 7589
 ANALYSIS FOR A NEW GUST GENERATOR FOR SUPERSONIC WIND TUN-
 NELS
 09/03/1998 - 06/30/1999 FY99: \$3,000 Total: \$14,000
Prin. Invest.: M B IBRAHIM
Tech. Officer: GRC/K J MELCHER
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 647 CLEVELAND STATE UNIVERSITY 7590
 THE STUDY OF THE APPLICATION OF MODERN METHODS OF CONTROL
 AND INTERFACE TO SCIENTIFIC EFFORTS
 09/04/1998 - 09/30/2001 FY99: \$71,144 Total: \$81,144
Prin. Invest.: G L KRAMERICH
Tech. Officer: GRC/J M MULLINS
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 657 CLEVELAND STATE UNIVERSITY 7591
 DEVELOPMENT AND TESTING OF FERRIC SOLUTIONS OF ORG AND PHOS-
 PHATES FOR DEFORMATION AND WEAR CONTROL
 01/11/1999 - 12/14/1999 FY99: \$15,510 Total: \$15,510
Prin. Invest.: D E GATICA
Tech. Officer: GRC/W MORALES
CASE Category: 43 - CHEMICAL ENGR

NCC 3 674 CLEVELAND STATE UNIVERSITY 7592
 BENCHMARK CHEMICAL INVESTIGATIONS ON THE DECOMPOSITION OF
 PHOSPHATE ESTER LUBRICANTS
 02/17/1999 - 01/28/2000 FY99: \$5,000 Total: \$5,000
Prin. Invest.: D W BALL
Tech. Officer: GRC/W MORLES
CASE Category: 12 - CHEMISTRY

NCC 3 699 CLEVELAND STATE UNIVERSITY 7593
 DEVELOPMENT OF DIGITAL CONTROL TECHNOLOGY FOR POWER MAN-
 AGEMENT AND DISTRIBUTION SYSTEMS
 04/02/1999 - 05/14/2002 FY99: \$75,000 Total: \$75,000
Prin. Invest.: Z GAO
Tech. Officer: GRC/J F SOEDER
CASE Category: 45 - ELECTRICAL ENGR

NAG 8 1433 COLLEGE OF WOOSTER 7594
 TURBIDITY AND UNIVERSALITY AROUND A LIQUID-LIQUID CRITICAL POINT
 02/06/1998 - 01/31/2003 FY99: \$31,000 Total: \$71,000
Prin. Invest.: D T JACOBS
Tech. Officer: MSFC/J W POE
CASE Category: 13 - PHYSICS

NAG 3 1711 CUYAHOGA COMMUNITY COLLEGE 7595
 CENTER FOR URBAN EXCELLANCE - SCIECE, ENGINEERING MATHEMAT-
 ICS, AND AEROSPACE ACADEMY (SEMMA)
 02/21/1995 - 09/30/1998 FY99: \$0 Total: \$1,598,600
Prin. Invest.: C JOHNSON
Tech. Officer: GRC/R L BONDURANT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 1778 CUYAHOGA COMMUNITY COLLEGE 7596
 MENTOR INTERSHIP PARTNERSHIP PROGRAM
 08/16/1995 - 08/15/1999 FY99: \$0 Total: \$76,605
Prin. Invest.: R L MOSS
Tech. Officer: GRC/F H YARRIS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2038 CUYAHOGA COMMUNITY COLLEGE 7597
 SCIENCE, ENGINEERING, MATHEMATICS AND AEROSPACE ACADEMY REP-
 LICATION
 04/21/1997 - 06/30/1999 FY99: \$0 Total: \$225,000
Prin. Invest.: T MCMANAMON
Tech. Officer: GRC/R L BONDURANT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2195 CUYAHOGA COMMUNITY COLLEGE 7598
 FIRST GENERATION TECH PREP STUDENT SCHOLARSHIPS IN ADVANCED
 SCIENCE & TECHNOLOGY
 09/03/1998 - 08/25/1999 FY99: \$0 Total: \$25,000
Prin. Invest.: S CHAND
Tech. Officer: GRC/R F LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 3 97169 CUYAHOGA COMMUNITY COLLEGE 7599
 CLASSROOM REPLICATION OF MAEL AWARDED THROUGH HQ F Y97
 PRTRNSHP AWARDS PRGM FOR MINORITY INST W/HBCU
 08/07/1997 - 08/07/1998 FY99: \$0 Total: \$400,000
Prin. Invest.: T MC MANAMON
Tech. Officer: LARC/R L BONDURANT, LARC/R F LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 3 98099 CUYAHOGA COMMUNITY COLLEGE 7600
 REPLICA OF SCIENCE ENGRG MATH. & AEROSPACE ACADEMY (SEMAA) IN
 CONNECTION W/NAS3-97168 (MAEL)
 06/30/1998 - 10/01/1999 FY99: \$2,561,704 Total: \$2,949,955
Prin. Invest.: L L DARLING
Tech. Officer: GRC/R L BONDURANT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4341 DENISON UNIVERSITY 7601
 LAB SPECTROSCOPY CH4 AND H2
 04/23/1997 - 05/31/2000 FY99: \$59,458 Total: \$112,808
Prin. Invest.: D E MICKELSON
Tech. Officer: GSFC/D BOGAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 3 1726 KENT STATE UNIVERSITY 7602
 RADIATION EFFECTS ON PHOTOVOLTAIC MATERIALS
 04/01/1995 - 03/31/1999 FY99: -\$424 Total: \$11,376
Prin. Invest.: C VARGAS-ABURTO
Tech. Officer: GRC/G RYBICKI
CASE Category: 13 - PHYSICS

NAG 3 1751 KENT STATE UNIVERSITY 7603
 KSU/NASA SUMMER INSTITUTE IN SPACE SCIENCE FOR MID DLE GRADE
 TEACHERS
 06/01/1995 - 08/31/1998 FY99: \$0 Total: \$265,967
Prin. Invest.: J D KELLER, T KOONTZ, T KING
Tech. Officer: GRC/J STORTI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3638 KENT STATE UNIVERSITY 7604
 LIQUID CRYSTAL FOCAL-PLANE SHUTTERS
 03/07/1997 - 02/28/2000 FY99: \$0 Total: \$99,100
Prin. Invest.: D K YANG
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NCC 3 394 KENT STATE UNIVERSITY 7605
 INSTRUMENTATION FOR THE MEASUREMENT OF MARS MATERIALS PROPERTIES
 02/06/1995 - 07/15/1999 FY99: -\$25 Total: \$103,413
Prin. Invest.: C VORGAS-ABURTO
Tech. Officer: GRC/A F HEPP
CASE Category: 45 - ELECTRICAL ENGR

NCC 3 457 KENT STATE UNIVERSITY 7606
 MATERIALS PRECURSOR DEVELOPMENT AND CHARACTERIZATION
 03/15/1996 - 02/28/1999 FY99: -\$20,787 Total: \$140,038
Prin. Invest.: C VARUS-ABURTO, R M URIBE
Tech. Officer: GRC/A F HEPP, GRC/S G BAILEY
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 563 KENT STATE UNIVERSITY 7607
 THIN FILM BATTERIES
 06/17/1997 - 01/31/2000 FY99: \$70,000 Total: \$147,000
Prin. Invest.: C VARGAS ABURTO, R URIBE
Tech. Officer: GRC/A F HEPP
CASE Category: 12 - CHEMISTRY

NCC 3 721 KENT STATE UNIVERSITY 7608
 E-BEAM SENSITIVE POLYIMIDES E-BEAM SENSITIVE POLYIMIDES
 07/02/1999 - 06/20/2000 FY99: \$58,779 Total: \$58,779
Prin. Invest.: R J TWIEG
Tech. Officer: GRC/M A MEADOR
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 729 KENT STATE UNIVERSITY 7609
 ANALYSIS AND CHARACTERIZATION OF ADVANCED SYSTEMS FOR AERO-
 SPACE APPLICATIONS
 08/25/1999 - 08/31/2000 FY99: \$51,410 Total: \$51,410
Prin. Invest.: A CHOWDHURY
Tech. Officer: GRC/A F HEPP
CASE Category: 12 - CHEMISTRY

NCC 3 734 KENT STATE UNIVERSITY 7610
 THIN FILM TECHNOLOGY FOR SPACE POWER THIN FILM TECHNOLOGY
 FOR SPACE POWER
 09/23/1999 - 08/31/2000 FY99: \$25,000 Total: \$25,000
Prin. Invest.: D CHOWDHURY
Tech. Officer: GRC/A HEPP
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 3 52309 KENT STATE UNIVERSITY 7611
 GRADUATE STUDENT RESEARCHERS PROGRAM - HIGH PERFORMANCE
 COMPUTING AND COMMUNICATION (HPPC)
 07/25/1995 - 01/21/2000 FY99: \$0 Total: \$66,000
Prin. Invest.: S RYAN
Tech. Officer: GRC/L SHAW
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 3 1780 LORAIN COUNTY COMMUNITY COLLEGE 7612
 LORAIN COMMUNITY COLLEGE/NASA LEWIS MENTOR INTERNSHIP PRO-
 GRAM
 08/17/1995 - 09/14/1998 FY99: \$0 Total: \$56,784
Prin. Invest.: G PILLAINAYAGAM, NONE
Tech. Officer: GRC/F H YARRIS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1017 MIAMI UNIVERSITY 7613
 GRAVIPERCEPTION IN STARCH-DEFICIENT PLANTS IN BIORACK
 10/31/1995 - 02/29/2000 FY99: \$0 Total: \$266,664
Prin. Invest.: J Z KISS
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 50041 MIAMI UNIVERSITY 7614
 THE ROLE OF INTEGRINS IN THE TRANSDUCTION OF GRAVITY
 08/15/1997 - 08/31/1999 FY99: \$0 Total: \$43,965
Prin. Invest.: J Z KISS/SWATZELL
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2156 MOUNT VERNON NAZARENE COLLEGE 7615
 DEVELOPING AN INTEGRATED THIN FILM FLOURESCENCE NO X SENSOR
 04/17/1998 - 07/31/1998 FY99: -\$73 Total: \$25,927
Prin. Invest.: R W GRUNLKE
Tech. Officer: GRC/M L TUMA
CASE Category: 13 - PHYSICS

NAG 5 7789 NORTHEASTERN OHIO UNIV COL OF MEDICINE 7616
 THE EFFECT OF HYPERGRAVITY ON BONE CELL CULTURES
 11/16/1998 - 07/31/2000 FY99: \$282,868 Total: \$282,868
Prin. Invest.: W J LANDIS
Tech. Officer: GSFC/M M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1074 OHIO NORTHERN UNIVERSITY 7617
 SUMMER FACILITY DIRECTOR'S GRANT
 01/20/1999 - 12/31/1999 FY99: \$15,500 Total: \$15,500
Prin. Invest.: C A SHEARROW
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 995 **OHIO STATE UNIVERSITY** **7618**
 HUMAN CENTERED TECHNOLOGIES & PROCEDURES FOR FUTURE AIR
 TRAFFIC MANAGEMENT
 08/21/1995 - 07/31/1998 FY99: \$0 Total: \$570,848
Prin. Invest.: P J SMITH, D D WOODS
Tech. Officer: ARC/J M ORASANU, ARC/J D FOSTER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1190 **OHIO STATE UNIVERSITY** **7619**
 THE REGULATION OF GROWTH IN THE DISTAL ELONGATION ZONE OF
 MAIZE ROOTS
 03/20/1998 - 09/30/1999 FY99: \$137,918 Total: \$175,899
Prin. Invest.: M L EVANS, H ISHIKAWA
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 2 1217 **OHIO STATE UNIVERSITY** **7620**
 DEVELOPMENT OF GRAVITY SENSITIVE PLANT CELLS (CERA TODON) IN
 MICROGRAVITY
 05/06/1998 - 09/30/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: F D SACK
Tech. Officer: ARC/C M WINGET, GRC/P D SAVAGE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1461 **OHIO STATE UNIVERSITY** **7621**
 HYDROGEN PASSIVATION & CHARACTERIZATION OF MISMATCH-INDUCED
 DEFECTS OF HETEROEPIAXIAL INP SOLAR CE
 02/26/1993 - 10/31/1998 FY99: -\$36 Total: \$151,926
Prin. Invest.: S A RINGEL
Tech. Officer: GRC/I WEINBERG
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1764 **OHIO STATE UNIVERSITY** **7622**
 THE EFFECTS OF MAGNETIC NOZZLE CONFIGURATIONS OF PLASMA
 THRUSTERS
 07/07/1995 - 07/04/2000 FY99: \$47,911 Total: \$351,483
Prin. Invest.: P J TURCHI
Tech. Officer: GRC/M MANTENIEKS
CASE Category: 13 - PHYSICS

NAG 3 1947 **OHIO STATE UNIVERSITY** **7623**
 CRYSTAL GROWTH & FLUID MECHANICS PROBLEMS IN DIRECTIONAL
 SOLIDIFICATION
 08/09/1996 - 06/30/2000 FY99: \$102,000 Total: \$366,000
Prin. Invest.: S TANVEER, NONE
Tech. Officer: GRC/A CHAIT
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1979 **OHIO STATE UNIVERSITY** **7624**
 PLANETARY GEAR DYNAMICS & VIBRATION ISOLATION IN ROTORCRAFT
 TRANSMISSIONS
 10/24/1996 - 10/31/1999 FY99: \$0 Total: \$100,727
Prin. Invest.: R G PARKER
Tech. Officer: GRC/T L KANTZ
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1986 **OHIO STATE UNIVERSITY** **7625**
 MIXING ENHANCEMENT & NOISE REDUCTION IN HIGH REYNOLDS NUMBER
 SUPERSONIC JETS
 11/06/1996 - 10/31/1999 FY99: \$89,486 Total: \$269,067
Prin. Invest.: D, M SAMIMY, NONE
Tech. Officer: GRC/K Q ZAMAN
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2007 **OHIO STATE UNIVERSITY** **7626**
 A STUDY OF TAILPLANE ICING
 01/27/1997 - 06/14/1999 FY99: \$0 Total: \$70,030
Prin. Invest.: G M GREYOREK
Tech. Officer: GRC/T P RATUVASKY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2084 **OHIO STATE UNIVERSITY** **7627**
 INTELLIGENT FAULT TOLERANT ENGINE CONTROL INTELLIGENT FAULT
 TOLERANT ENGINE CONTROL
 10/30/1997 - 10/31/2000 FY99: \$126,094 Total: \$194,898
Prin. Invest.: K M PASSINO
Tech. Officer: GRC/T H GUO, GRC/J LITT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2090 **OHIO STATE UNIVERSITY** **7628**
 RESEARCH ON HIGH TEMPERATURE INSULATION FOR ELECTRICAL CON-
 DUCTORS
 02/27/1998 - 03/31/2000 FY99: \$50,934 Total: \$91,087
Prin. Invest.: E KYEIDLER
Tech. Officer: GRC/J LEL, GRC/G C FRALIKE
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2138 **OHIO STATE UNIVERSITY** **7629**
 ULTRASOUND THERMAL FIELD IMAGING OF OPAQUE FLUIDS ULTRA-
 SOUND THERMAL FIELD IMAGING OF OPAQUE FLUIDS
 03/06/1998 - 12/31/2002 FY99: \$88,000 Total: \$160,000
Prin. Invest.: C D ANDERECCK
Tech. Officer: GRC/D W GRIFFIN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2157 **OHIO STATE UNIVERSITY** **7630**
 UNSTEADY EFFECTS (INCLUDING FILM COOLING) ON HIGH PRESSURE
 TURBINES: AN ANALYTICAL AND EXPERIMENTAL
 04/22/1998 - 02/23/2000 FY99: \$30,843 Total: \$110,843
Prin. Invest.: M G DUNN, R S ABHARI
Tech. Officer: GRC/K C CIVISKAS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2202 **OHIO STATE UNIVERSITY** **7631**
 MAGNETIC NOZZLE STUDIES FOR ADVANCED ROCKET PROPULSION
 09/25/1998 - 09/30/1999 FY99: \$40,000 Total: \$50,000
Prin. Invest.: P J TURCHI
Tech. Officer: GRC/C H WILLIAMS
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 3 2215 **OHIO STATE UNIVERSITY** **7632**
 DEVELOPMENT OF HIGH PERFORMANCE III-V SPACE PHOTOVOLTAICS ON
 Si-BASED SUBSTRATES
 12/24/1998 - 11/23/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: D A RINGEL
Tech. Officer: GRC/D M WILT
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2233 OHIO STATE UNIVERSITY 7633
 CHARACTERIZATION OF COMPOSITES RESPONSE AT HIGH RATES OF DEFORMATION
 02/19/1999 - 01/12/2000 FY99: \$45,000 Total: \$45,000
Prin. Invest.: A GILAT
Tech. Officer: GRC/G D ROBERTS
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2256 OHIO STATE UNIVERSITY 7634
 WAVELET COMPRESSION OF SATELLITE-TRANSMITTED DIGITAL MAMMOGRAMS
 04/06/1999 - 03/31/2000 FY99: \$21,175 Total: \$21,175
Prin. Invest.: Y F ZHENG
Tech. Officer: GRC/R J KERCZEWSKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2355 OHIO STATE UNIVERSITY 7635
 MULTIWAVELENGTH STUDY OF X-RAY NOVAE
 08/25/1993 - 01/14/1998 FY99: -\$134 Total: \$58,964
Prin. Invest.: R M WAGNER, C R SHRADER
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2996 OHIO STATE UNIVERSITY 7636
 EXTRACTION AND INTERPRETATION OF POLAR LITHOSPHERIC ANOMALIES FROM COMBINED OERSTED AND MAGSAT DATA
 07/10/1995 - 02/14/1999 FY99: \$0 Total: \$174,976
Prin. Invest.: R VON FRESE
Tech. Officer: GSFC/P TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3111 OHIO STATE UNIVERSITY 7637
 DARK MATTER AND COSMIC STRUCTURE FORMATION
 10/24/1995 - 10/31/1999 FY99: \$0 Total: \$207,000
Prin. Invest.: D H WEINBERG
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3305 OHIO STATE UNIVERSITY 7638
 SS433'S X-RAY ECLIPSE
 07/24/1996 - 01/31/1998 FY99: -\$83 Total: \$3,713
Prin. Invest.: M WAGNER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3477 OHIO STATE UNIVERSITY 7639
 REMOTE SENSING STUDIES OF GLACIER FACIES ON THE G
 10/30/1996 - 06/30/1998 FY99: -\$31 Total: \$102,649
Prin. Invest.: K JEZEK
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3497 OHIO STATE UNIVERSITY 7640
 REVERBERATION MAPPING OF MARKARIAN 335
 11/27/1996 - 11/30/1998 FY99: \$0 Total: \$42,000
Prin. Invest.: B M PETERSON
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3525 OHIO STATE UNIVERSITY 7641
 QUASAR ABSORPTION IN THE UV: PROBING THE INTERGALA
 11/13/1996 - 08/14/1999 FY99: \$107,400 Total: \$324,800
Prin. Invest.: D H WEINBERG
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3774 OHIO STATE UNIVERSITY 7642
 RE-EVALUATION OF THE ROLE OF STARCH IN GRAVITROPIC
 03/06/1997 - 02/14/1998 FY99: \$0 Total: \$90,301
Prin. Invest.: F SACK
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3817 OHIO STATE UNIVERSITY 7643
 MULTIWAVELENGTH STUDIES OF X-RAY NOVAE
 01/14/1997 - 01/14/1998 FY99: -\$2,166 Total: \$7,834
Prin. Invest.: R WAGNER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3983 OHIO STATE UNIVERSITY 7644
 MILLIMETER AND SUBMILLIMETER SPECTROSCOPY OF MOLECULAR IMPORTANCE
 03/03/1997 - 12/31/1999 FY99: \$87,387 Total: \$292,012
Prin. Invest.: F C DEELUCIA
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4075 OHIO STATE UNIVERSITY 7645
 A COOPERATIVE PALEOCLIMATE STUDY OF GRAHAM BELL IC LAND, RUSSIA
 05/06/1997 - 06/30/1999 FY99: \$0 Total: \$266,425
Prin. Invest.: D L THOMPSON
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4239 OHIO STATE UNIVERSITY 7646
 BLACK HOLE X-RAY NOVA OUTBURST WITH XTE AND HST
 04/18/1997 - 03/31/1998 FY99: \$0 Total: \$2,945
Prin. Invest.: M WAGNER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4250 OHIO STATE UNIVERSITY 7647
 SAR-BASED STRUCTURAL MAPPING OF THE TRANSANTARCTIC
 03/24/1997 - 03/31/2000 FY99: \$52,394 Total: \$148,264
Prin. Invest.: T J WILSON
Tech. Officer: GSFC/S H GOGINENI
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4849 OHIO STATE UNIVERSITY 7648
 RADARSAT: THE ANTARCTIC MAPPING PROJECT
 07/23/1997 - 03/31/2000 FY99: \$0 Total: \$1,142,022
Prin. Invest.: D JEZEK
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5032 OHIO STATE UNIVERSITY 7649
 NET ANNUAL ACCUMULATION IN WESTERN GREENLAND FOR THE LAST
 200 YEARS
 03/28/1995 - 09/30/1998 FY99: \$0 Total: \$201,777
Prin. Invest.: E MOSLEY-THOMPSON
Tech. Officer: WFF/W B KRABILL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6001 OHIO STATE UNIVERSITY 7650
 SATELLITE AND MODEL ANALYSIS OF THE ATMOSPHERIC MOI LATITUDES
 09/10/1997 - 12/31/1999 FY99: \$33,571 Total: \$323,474
Prin. Invest.: D BROMWICH
Tech. Officer: HQ/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6344 OHIO STATE UNIVERSITY 7651
 HUMAN INTERACTION DESIGN FOR ANOMALY RESPONSE
 09/11/1997 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: D WOODS
Tech. Officer: GSFC/G FOGLEMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6527 OHIO STATE UNIVERSITY 7652
 THE SPATIAL AND TEMPORAL CHARACTERISTICS OF HIGH L ATITUDE SEA-
 SONAL SNOW MELT AS DETECTED BYPASSIVE
 12/06/1997 - 05/31/1999 FY99: -\$56,061 Total: \$77,841
Prin. Invest.: K JEZEK
Tech. Officer: GSFC/J DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6618 OHIO STATE UNIVERSITY 7653
 APPLICATIONS OF HISTORICAL SATELLITE DATA SETS FOR GLOBAL ENVI-
 RONMENTAL ASSESSMENTS
 11/18/1997 - 11/14/1998 FY99: \$0 Total: \$135,000
Prin. Invest.: D C JEZEK
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6697 OHIO STATE UNIVERSITY 7654
 THE STUDY OF EFFECTS OF TIME VARIATIONS IN THE EARTH'S GRAVITY
 FIELD ON GEODETIC SATELLITES
 11/01/1997 - 10/31/1998 FY99: \$0 Total: \$50,000
Prin. Invest.: C K SHUM
Tech. Officer: GSFC/P T TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6817 OHIO STATE UNIVERSITY 7655
 SPATIAL AND TEMPORAL VARIABILITY OF NET ANNUAL ACC UMULATION
 AND CLIMATE IN GREENLAND
 01/07/1998 - 12/31/1999 FY99: \$177,449 Total: \$238,950
Prin. Invest.: E S MOSLEY-THOMPSON
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6818 OHIO STATE UNIVERSITY 7656
 DETERMINING GREENLAND ICESHEET ACCUMULATION RATES FROM
 RADAR REMOTE SENSING
 01/07/1998 - 12/31/1999 FY99: \$90,000 Total: \$170,722
Prin. Invest.: K C JEZEK
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6908 OHIO STATE UNIVERSITY 7657
 ATOMIC DATABASE FOR ASTROPHYSICS FROM THE IRON PR OJECT
 01/23/1998 - 01/31/2000 FY99: \$46,000 Total: \$91,000
Prin. Invest.: A PRADHAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7029 OHIO STATE UNIVERSITY 7658
 OPTICAL IDENTIFICATION OF GAMMA-RAY BURSTS WITH TH E LONEOS
 TELESCOPE
 02/12/1998 - 01/14/1999 FY99: \$0 Total: \$25,000
Prin. Invest.: R WAGNER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7116 OHIO STATE UNIVERSITY 7659
 STAR FORMATION AND THE INTERSTELLAR MEDIUM IN SO GALAXIES
 USING ROSAT POINTED OB
 04/15/1998 - 07/14/2000 FY99: \$0 Total: \$8,563
Prin. Invest.: P ESKRIDGE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7150 OHIO STATE UNIVERSITY 7660
 STANDARD & NONSTANDARD STELLAR MODELS: IMPLICATIONS FOR CLUS-
 TER AGES AND LATE EVOLUTIONAERY STAGES
 04/02/1998 - 03/14/2000 FY99: \$101,000 Total: \$205,000
Prin. Invest.: M H PINSONNEAULT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7284 OHIO STATE UNIVERSITY 7661
 VERIFICATION AND IMPROVEMENT OF ERS-1/2 ALTIMETER GEOPHYSICAL
 DATA RECORDERS FOR GLOBAL CHANGES
 04/22/1998 - 06/30/2001 FY99: \$32,105 Total: \$97,113
Prin. Invest.: C K SHUM
Tech. Officer: GSFC/E J LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7574 OHIO STATE UNIVERSITY 7662
 FUNDING FOR GRAVITY &TIME VARYING GRAVITY FIELD RE COVERY
 (SENH98-0144)
 08/04/1998 - 01/31/2000 FY99: \$100,000 Total: \$150,000
Prin. Invest.: C K SHUM
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7589 OHIO STATE UNIVERSITY 7663
 SEARCHING FOR EXTRA-SOLAR SYSTEM PLANETS USING MUL TIColor
 MICROLENSING OBSERVATIONS
 06/30/1998 - 03/31/2001 FY99: \$44,400 Total: \$96,400
Prin. Invest.: D L DEPOY
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8313 OHIO STATE UNIVERSITY 7664
 SUPPORT OF GRAVITATIONAL MICROLENSING FOLLOW-UP OB SERVA-
 TIONS BY THEPLANET COLLABORATION
 03/23/1999 - 02/28/2000 FY99: \$125,000 Total: \$125,000
Prin. Invest.: D L DEPOY
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8423 OHIO STATE UNIVERSITY 7665
 ATOMIC PROCESSES IN X-RAY ASTROPHYSICS (ATP 98)
 04/15/1999 - 04/14/2000 FY99: \$63,000 Total: \$63,000
Prin. Invest.: A K PRADHAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8455 OHIO STATE UNIVERSITY 7666
 BAYESIAN HIERARCHICAL AIR-SEA INTERACTION MODELING : DEVELOP-
 MENT AND APPLICATION TO THE LABR
 04/12/1999 - 05/31/2000 FY99: \$16,037 Total: \$16,037
Prin. Invest.: K N BERLINER *Prin. Invest.:* NONE
Tech. Officer: GSFC/E LIDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8632 OHIO STATE UNIVERSITY 7667
 MODELING GREENLAND OUTLET GLACIERS
 06/28/1999 - 06/30/2000 FY99: \$70,761 Total: \$70,761
Prin. Invest.: C DER VEEN
Tech. Officer: GSFC/E LIDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1267 OHIO STATE UNIVERSITY 7668
 REVERSE MICELLE BASED SYNTHESIS OF MICROPOROUS MATERIALS IN
 MICROGRAVITY
 05/23/1996 - 05/31/2000 FY99: \$83,000 Total: \$290,500
Prin. Invest.: P K DUTTA, R ANSARI, C T KRESGE
Tech. Officer: MSFC/P DOTY, MSFC/R W ALLEN
CASE Category: 13 - PHYSICS

NAG 8 1441 OHIO STATE UNIVERSITY 7669
 GRAVITATIONAL EFFECTS IN BOSE-EINSTEIN CONDENSATE OF ATOMIC
 GASES
 03/06/1998 - 01/31/2003 FY99: \$48,000 Total: \$87,000
Prin. Invest.: T HO
Tech. Officer: MSFC/D HUBBARD
CASE Category: 13 - PHYSICS

NAG 8 1470 OHIO STATE UNIVERSITY 7670
 R/S INTERDIFFUSION IN THE PRESENCE OF FREE CONVECTION
 03/26/1998 - 01/30/2002 FY99: \$67,666 Total: \$114,333
Prin. Invest.: P K GUPTA
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 786 OHIO STATE UNIVERSITY 7671
 HUMAN INTERACTION DESIGN FOR COOPERATING AUTOMATION
 05/31/1995 - 07/31/1999 FY99: -\$11,705 Total: \$51,295
Prin. Invest.: D WOODS
Tech. Officer: JSC/J MALIN
CASE Category: 46 - MECHANICAL ENGR

NAG 9 1005 OHIO STATE UNIVERSITY 7672
 ORIENTATION FOR INTERVENTION: SUPPORTING MISSION AWARENESS IN
 SPACE OPERATIONS
 05/06/1998 - 06/30/2001 FY99: \$85,000 Total: \$125,000
Prin. Invest.: D D WOODS
Tech. Officer: JSC/J DETROVE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 2639 OHIO STATE UNIVERSITY 7673
 MILLIMETER AND SUBMILLIMETER SPECTROSCOPY
 08/20/1991 - 09/30/1997 FY99: -\$695 Total: \$630,152
Prin. Invest.: F C DE LUCIA
Tech. Officer: HQ/M J KURYLO, HQ/R F HAMPSON
CASE Category: 13 - PHYSICS

NAGW 2906 OHIO STATE UNIVERSITY 7674
 SUBMILLIMETER LABORATORY INVESTIGATIONS: SPECTROSCOPY AND
 COLLISIONS
 02/20/1992 - 01/13/1998 FY99: \$0 Total: \$324,778
Prin. Invest.: E HERBST, F C DE LUCIA
Tech. Officer: HQ/L J CAROFF
CASE Category: 11 - ASTRONOMY

NAGW 3677 OHIO STATE UNIVERSITY 7675
 SATELLITE AND MODEL ANALYSIS OF THE ATMOSPHERIC MOISTURE BUD-
 GET
 06/30/1993 - 09/30/1998 FY99: \$0 Total: \$496,801
Prin. Invest.: D H BROMWICH
Tech. Officer: HQ/R H THOMAS, HQ/R A SCHIFFER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4744 OHIO STATE UNIVERSITY 7676
 RADARSAT: THE ANTARCTIC MAPPING PROJECT
 09/25/1995 - 09/30/1998 FY99: -\$53 Total: \$2,289,340
Prin. Invest.: K C JEZEK
Tech. Officer: HQ/M E MAIDEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4985 OHIO STATE UNIVERSITY 7677
 SAR BASED STRUCTURAL MAPPING
 03/05/1996 - 09/30/1997 FY99: -\$1,742 Total: \$60,741
Prin. Invest.: T J WILSON
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG10 179 OHIO STATE UNIVERSITY 7678
 DIFFERENTIATION IN SPACE GROWN MOSS
 12/07/1995 - 12/14/1999 FY99: \$0 Total: \$286,393
Prin. Invest.: F SACK
Tech. Officer: KSC/W KNOLL
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG10 263 OHIO STATE UNIVERSITY 7679
 DEVELOPMENT OF GRAVITY SENSITIVE PLANT CELLS CERATODON IN
 MICROGRAVITY
 07/14/1999 - 07/14/2000 FY99: \$70,117 Total: \$70,117
Prin. Invest.: F SACK
Tech. Officer: KSC/G ETHERIDGE
CASE Category: 55 - AGRICULTURE

NAG13 42 OHIO STATE UNIVERSITY 7680
 A CENTER FOR THE COMMERCIAL DEVELOPMENT OF SPACE: REAL-TIME
 AIRBORNE/SATELLITE MAPPING
 01/10/1997 - 02/08/1999 FY99: \$431,917 Total: \$2,902,675
Prin. Invest.: J D BOSSLER
Tech. Officer: SSC/H CARR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 1 98102 **OHIO STATE UNIVERSITY** **7681**
 FINAL TESTING AND EVALUATION OF ATR LOW FREQUENCY COMPACT
 RANGE FACILITY
 04/07/1998 - 09/30/1999 FY99: \$82,500 Total: \$250,000
Prin. Invest.: N D BURNSIDE
Tech. Officer: LARC/M GILREATH
CASE Category: 45 - ELECTRICAL ENGR

NAS 3 97030 **OHIO STATE UNIVERSITY** **7682**
 NRA-ULTRASONIC CHARACTERIZATION OF FATIGUE MICRO DAMAGE
 11/08/1996 - 09/30/1999 FY99: \$0 Total: \$110,977
Prin. Invest.: S ROKHLIN, G MAJOR, D WILLIARD
Tech. Officer: GRC/D J ROTH
CASE Category: 47 - METAL & MATERIALS ENGR

NAS 3 97198 **OHIO STATE UNIVERSITY** **7683**
 DESIGN ISSUES IN TRAFFIC MGMT FOR THE ATM UBR+SER VICE FOR
 TCP OVER SATELLITE NETWORKS
 12/02/1997 - 12/01/1998 FY99: \$0 Total: \$159,629
Prin. Invest.: A JAIN
Tech. Officer: GRC/T C VONDEAK
CASE Category: 22 - COMPUTER SCIENCE

NAS 5 30946 **OHIO STATE UNIVERSITY** **7684**
 GLRS TEAM MEMBER SUPPORT TO THE EARTH OBSERVING SYSTEM
 (EOS) PROGRAM
 12/18/1990 - 10/01/1999 FY99: \$0 Total: \$596,762
Prin. Invest.: R H THOMAS
Tech. Officer: GSFC/T W HAMILTON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCA 1 146 **OHIO STATE UNIVERSITY** **7685**
 AGATE PROGRAM - GENERAL AVIATION
 07/11/1996 - 10/31/1997 FY99: \$0 Total: \$57,000
Prin. Invest.: G CHUBB
Tech. Officer: LARC/B J HOLMES, LARC/M H DURHAM
CASE Category: 41 - AERONAUTICAL ENGR

NCA 3 122 **OHIO STATE UNIVERSITY** **7686**
 2.1.5.3 VALIDATE ENGINE MODULE USING TEST DATA
 03/04/1997 - 10/01/1999 FY99: \$39,000 Total: \$69,000
Prin. Invest.: R FORTNER
Tech. Officer: GRC/J L MUSGRAVE
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 830 **OHIO STATE UNIVERSITY** **7687**
 DISTRIBUTED & COOPERATIVE PROBLEM-SOLVING IN THE NATIONAL AVI-
 ATION SYSTEM
 10/19/1993 - 09/30/1999 FY99: \$30,000 Total: \$384,060
Prin. Invest.: P J SMITH
Tech. Officer: ARC/J M ORASANU
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 1123 **OHIO STATE UNIVERSITY** **7688**
 DISTRIBUTED COOPERATIVE PROBLEM-SOLVING IN AIR CARRIER & AIR
 TRAFFIC MANAGEMENT INTERACTIONS
 06/09/1999 - 05/31/2000 FY99: \$96,018 Total: \$96,018
Prin. Invest.: P J SMITH
Tech. Officer: ARC/J M ORASANU
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 1130 **OHIO STATE UNIVERSITY** **7689**
 DISTRIBUTED & COOPERATIVE PROBLEM-SOLVING IN AIR CARRIER & AIR
 TRAFFIC COMMUNICATION
 08/04/1999 - 07/14/2000 FY99: \$93,000 Total: \$93,000
Prin. Invest.: C E MCCOY
Tech. Officer: ARC/J M ORASANU
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 5251 **OHIO STATE UNIVERSITY** **7690**
 MINATURIZATION METHODOLOGIES IN BIOMEDICAL AND CHEMICAL SEN-
 SOR APPLICATIONS AT NASA
 01/28/1998 - 07/31/1999 FY99: \$16,000 Total: \$56,000
Prin. Invest.: M MADOU
Tech. Officer: ARC/J W HINES, ARC/M G SKIDMORE
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 434 **OHIO STATE UNIVERSITY** **7691**
 DEVELOPMENT OF LOW REYNOLDS NUMBER HEAT EXCHANGERS
 09/25/1995 - 06/02/2000 FY99: \$177,324 Total: \$824,635
Prin. Invest.: R N CHRISTENSEN, Y GUEZENNEC
Tech. Officer: GRC/T T MOCKLER, GRC/D BENTS
CASE Category: 46 - MECHANICAL ENGR

NCC 3 555 **OHIO STATE UNIVERSITY** **7692**
 MODELING OF DIFFUSION IN LIQUID GE & ITS ALLOYS
 05/06/1997 - 07/10/1998 FY99: \$0 Total: \$42,000
Prin. Invest.: STROUD
Tech. Officer: GRC/T K GLASGOW
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 733 **OHIO STATE UNIVERSITY** **7693**
 DESIGN AND DEVELOPMENT OF SMART ELECTROMAGNETIC STRUCTURES
 09/22/1999 - 09/30/2000 FY99: \$18,500 Total: \$18,500
Prin. Invest.: G WASHINGTON
Tech. Officer: GRC/R ROMANOFKY
CASE Category: 45 - ELECTRICAL ENGR

NGT 3 52355 **OHIO STATE UNIVERSITY** **7694**
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT
 RESEARCH PROGRAM
 06/24/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: S A RINGEL
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 45 - ELECTRICAL ENGR

NGT 5 30012 **OHIO STATE UNIVERSITY** **7695**
 AN ICE CORE PALEOCLIMATE STUDY OF WINDY DOME, FRANT DEVELOP-
 MENT OF A SEA ICE PROXY FROM SATELLITE AND
 10/14/1996 - 08/31/2000 FY99: \$0 Total: \$66,000
Prin. Invest.: L G THOMPSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30042 **OHIO STATE UNIVERSITY** **7696**
 BIOMASS BURNING IN TROPICAL RAIN FORESTS: AN ANALY AND LAND
 USE PRACTICE TO ASSESS BURNING PATTERNS
 10/17/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: L BROWN/SORRENSEN
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50015 **OHIO STATE UNIVERSITY** **7697**
 THE ROLE OF ELECTRICAL EVENTS IN CONTROLLING DIFFERENTIAL GRAVITROPISM IN THE DEZ
 09/06/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M EVANS, NONE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NSG 1613 **OHIO STATE UNIVERSITY** **7698**
 RADAR CROSS SECTION STUDIES
 04/18/1979 - 06/30/1998 FY99: \$0 Total: \$9,178,999
Prin. Invest.: W D BURNSIDE, L PETERS, JR, A K DOMINEK
Tech. Officer: LARC/M C GILREATH, LARC/W C SAWYER
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1423 **OHIO UNIVERSITY** **7699**
 GPS INTERFEROMETRY
 04/06/1992 - 03/31/1998 FY99: -\$1 Total: \$694,267
Prin. Invest.: F VAN GRAAS
Tech. Officer: LARC/R M HUESCHEN
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 2036 **OHIO UNIVERSITY** **7700**
 MODIFYING & TESTING ATC CONTROLLER INTERFACE (CI) FOR DATA LINK CLEARANCES
 03/24/1998 - 02/29/2000 FY99: \$175,000 Total: \$330,756
Prin. Invest.: J RANKIN, P MATTSO
Tech. Officer: LARC/S D YOUNG
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 2099 **OHIO UNIVERSITY** **7701**
 HAPTICS-AUGMENTED NASA EDUCATION VIA THE INTERNET
 08/10/1998 - 09/30/1999 FY99: \$28,031 Total: \$30,031
Prin. Invest.: R L WILLIAMS
Tech. Officer: LARC/J M SEATON
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 3050 **OHIO UNIVERSITY** **7702**
 THE THREE DIMENSIONAL MASS DISTRIBUTIONS IN ELLIPTICAL GALAXIES
 09/01/1995 - 06/14/1999 FY99: \$0 Total: \$119,326
Prin. Invest.: T STATLER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3563 **OHIO UNIVERSITY** **7703**
 IR SPECTROSCOPY OF THE LOWEST LUMINOSITY SY 1 NUCLEI
 01/29/1997 - 04/30/2000 FY99: \$0 Total: \$51,800
Prin. Invest.: J C SHIELDS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3690 **OHIO UNIVERSITY** **7704**
 MULTIWAVELENGTH STUDY OF HIGH REDSHIFT QUASARS
 01/22/1997 - 01/31/1999 FY99: -\$2,533 Total: \$7,467
Prin. Invest.: J C SHIELDS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NCC 1 351 **OHIO UNIVERSITY** **7705**
 A DTED TERRAIN AVOIDANCE SYS UTILIZING GPS AND RADAR ALTIMETER MONITORING, RE NRA 98-LARC-10
 09/01/1999 - 12/31/2002 FY99: \$47,000 Total: \$47,000
Prin. Invest.: J M RANKIN, D DIGGLE, M U DE HAAG
Tech. Officer: LARC/R M HUESCHEN, LARC/R V PARRISH
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 827 **OHIO UNIVERSITY** **7706**
 DISTRIBUTED & COOPERATIVE PROBLEM-SOLVING IN THE NATIONAL AVIATION SYSTEM
 09/20/1993 - 05/31/2000 FY99: \$0 Total: \$341,713
Prin. Invest.: C E MCCOY, P J SMITH
Tech. Officer: ARC/J M ORASANU
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 1030 **OHIO UNIVERSITY** **7707**
 WEATHER-RELATED PILOT DECISION-MAKING CONTEXT CATEGORIZATION
 03/25/1998 - 12/31/1999 FY99: \$59,306 Total: \$132,386
Prin. Invest.: C E MCCOY
Tech. Officer: ARC/J M ORASANU
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 3 430 **OHIO UNIVERSITY** **7708**
 HIGH PERFORMANCE TCP/IP APPLICATIONS FOR USE OVER FAST SATELLITE COMMUNICATIONS CHANNELS
 09/19/1995 - 09/30/1998 FY99: \$0 Total: \$200,753
Prin. Invest.: H KRUSE
Tech. Officer: GRC/R J SCHERTLER
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 680 **OHIO UNIVERSITY** **7709**
 A STUDY OF MULTI-USER TCPTRAFFIC OVER ACTS A STUDY OF MULTI-USER TCPTRAFFIC OVER ACTS
 03/10/1999 - 12/31/1999 FY99: \$65,000 Total: \$65,000
Prin. Invest.: S OSTERMANN
Tech. Officer: GRC/W D IVANCIC
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 448 **UNIVERSITY OF AKRON** **7710**
 SYNTHESIS & CHARACTERIZATION OF THERMALLY-STABLE SOLVENT/IMPACT RESISTANT THERMOPLASTIC POLYIMIDES
 02/13/1984 - 03/31/1998 FY99: -\$1 Total: \$1,139,994
Prin. Invest.: F W HARRIS
Tech. Officer: LARC/P M HERGENROTHER, LARC/B J JENSEN
CASE Category: 12 - CHEMISTRY

NAG 1 2067 **UNIVERSITY OF AKRON** **7711**
 NEW RTM/R RESINS FOR THE HSCT
 05/28/1998 - 05/31/1999 FY99: \$25,000 Total: \$60,000
Prin. Invest.: F W HARRIS
Tech. Officer: LARC/P M HERGENROTHER, LARC/J W CONNELL
CASE Category: 12 - CHEMISTRY

NAG 3 1747 **UNIVERSITY OF AKRON** **7712**
 DEVELOPMENTS IN COUPLED DEFORMATION-DAMAGE AND FRACTURE MODELING FOR LIFE PREDICTIONS OF STRUCTURES
 05/19/1995 - 03/15/2000 FY99: \$171,187 Total: \$557,413
Prin. Invest.: A F SALEEB
Tech. Officer: GRC/S M ARNOLD
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2069 UNIVERSITY OF AKRON 7713
 FE/ANALYTICAL LIFE PREDICTION OF BRITTLE MATERIALS
 08/19/1997 - 05/31/1998 FY99: \$0 Total: \$48,304
Prin. Invest.: J PADOVAN, W K BINIENDA
Tech. Officer: GRC/G R HALFORD
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2182 UNIVERSITY OF AKRON 7714
 FAST POTENTIAL THEORETIC METHODS FOR FAR-FIELD SOUND RADIATION PROBLEMS
 07/18/1998 - 06/30/2000 FY99: \$0 Total: \$30,000
Prin. Invest.: D I HAIHARAN
Tech. Officer: GRC/J R SCOTT
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 3 2201 UNIVERSITY OF AKRON 7715
 GENERAL CRACK PROBLEMS IN FUNCTIONALLY GRADED MATERIALS
 09/24/1998 - 01/21/1999 FY99: \$0 Total: \$42,000
Prin. Invest.: W K BINIENDA
Tech. Officer: GRC/G R HALFORD
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2278 UNIVERSITY OF AKRON 7716
 IMPLEMENTATION AND PERFORMANCE EVALUATION OF A DC/DC CONVERTER FOR CRYOGENIC APPLICATIONS
 07/15/1999 - 06/23/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: M E ELBULUK
Tech. Officer: GRC/R L PATTERSON
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2279 UNIVERSITY OF AKRON 7717
 SYSTEM AND PROPAGATION AVAILABILITY ANALYSIS FOR NASA'S ADVANCED AIR TRANSPORTATION TECHNOLOGIES (A)
 07/12/1999 - 05/25/2000 FY99: \$44,100 Total: \$44,100
Prin. Invest.: O C UGWEJE
Tech. Officer: GRC/R J ACOSTA
CASE Category: 45 - ELECTRICAL ENGR

NCC 3 441 UNIVERSITY OF AKRON 7718
 COMPUTATIONAL TOOL AND TECHNIQUES FOR THE MACRO/NUCRIMEMECHANICAL ANALYSIS OF COMPOSITE STRUCTURES
 12/14/1995 - 03/03/2000 FY99: \$135,000 Total: \$515,919
Prin. Invest.: A F SALEEB
Tech. Officer: GRC/S M ARNOLD
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 494 UNIVERSITY OF AKRON 7719
 SOFTWARE & HARDWARE DEVELOPMENT IN COMPUTATIONAL MATERIALS SCIENCE
 08/09/1996 - 06/08/1999 FY99: \$43,507 Total: \$417,996
Prin. Invest.: G YOUNG
Tech. Officer: GRC/A CHAIT
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 526 UNIVERSITY OF AKRON 7720
 UTILIZATION OF FRACTIONAL ORDER SYSTEMS IN CONTROL IN ENGINEERING
 01/06/1997 - 12/31/1999 FY99: \$26,208 Total: \$85,080
Prin. Invest.: T T HARTLEY
Tech. Officer: GRC/C LORENZO
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 545 UNIVERSITY OF AKRON 7721
 DEVELOPMENT OF ADVANCED LIFE PREDICTION & FINITE ELEMENT ANALYSIS TECHNIQUE FOR AEROSPACE COMPONENTS
 02/24/1997 - 01/22/2000 FY99: \$126,120 Total: \$378,575
Prin. Invest.: D C BUCHTHAL, V K ARYA
Tech. Officer: GRC/G R HALFORD
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 567 UNIVERSITY OF AKRON 7722
 DETERMINATION OF OPTIMUM HEATING ZONE LENGTH & CONTROL TEMPERATURE COUPLE PLACEMENT FOR GRIDMAN CRYSTAL G
 07/01/1997 - 09/30/1999 FY99: \$0 Total: \$33,999
Prin. Invest.: C BATUR
Tech. Officer: GRC/W B DUVAL
CASE Category: 46 - MECHANICAL ENGR

NCC 3 578 UNIVERSITY OF AKRON 7723
 ENHANCEMENTS TO NURBS-BASED FE AIRFOIL MODLER-SABER
 10/24/1997 - 11/05/1999 FY99: \$58,264 Total: \$110,866
Prin. Invest.: A F SALEEB, D A TROWBRIDGE
Tech. Officer: GRC/S A THORP
CASE Category: 46 - MECHANICAL ENGR

NCC 3 579 UNIVERSITY OF AKRON 7724
 DESIGN ANALYSIS AND MATERIAL MODELING FOR CERAMIC MATRIX COMPOSITE MATERIALS
 10/31/1997 - 11/13/1999 FY99: \$113,587 Total: \$220,889
Prin. Invest.: W BINIENDA
Tech. Officer: GRC/N N NEMETH
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 608 UNIVERSITY OF AKRON 7725
 IMPROVED PROCESSING AND HIGH TEMPERATURE PERFORMANCE OF COMPOSITES
 04/08/1998 - 02/02/1999 FY99: \$0 Total: \$140,364
Prin. Invest.: R K EBY
Tech. Officer: GRC/M A MEADOR
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 615 UNIVERSITY OF AKRON 7726
 HIGH TEMPERATURE TESTING AND MODELING OF CERAMIC MATRIX COMPOSITES
 06/12/1998 - 04/30/1999 FY99: \$42,310 Total: \$101,544
Prin. Invest.: W K BINIENDA
Tech. Officer: GRC/R T BHATT
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 651 UNIVERSITY OF AKRON 7727
 NDE METHODS FOR COMMERCIAL AIRCRAFT ENGINES NDE METHODS FOR COMMERCIAL AIRCRAFT ENGINES
 11/09/1998 - 11/03/1999 FY99: \$115,507 Total: \$115,507
Prin. Invest.: W K BINIENDA
Tech. Officer: GRC/H E KAUTZ
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 682 UNIVERSITY OF AKRON 7728
 IMPROVED HIGH TEMPERATURE POLYIMIDE COMPOSITES IMPROVED HIGH TEMPERATURE POLYIMIDE COMPOSITES
 02/24/1999 - 11/30/1999 FY99: \$157,655 Total: \$157,655
Prin. Invest.: R K EBY
Tech. Officer: GRC/M A MEADOR
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 716 UNIVERSITY OF AKRON 7729
 THEORY, MODELING, SOFTWARE AND HARDWARE DEVELOPMENT IN
 COMPUTATIONAL MATERIALS SCIENCE
 06/25/1999 - 06/07/2000 FY99: \$96,200 Total: \$96,200
Prin. Invest.: G W YOUNG
Tech. Officer: GRC/A CHAIT
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 2 52228 UNIVERSITY OF AKRON 7730
 THE DEVELOPMENT OF NEURAL-NETWORK-ENHANCED ELECTRIC AL
 INDEPENDENCE CARDIOGRAPH FOR HEMODYNAMIC.....
 08/14/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: B C TAYLOR
Tech. Officer: ARC/P S COWINGS
CASE Category: 49 - ENGINEERING, OTHER

NGT 3 52327 UNIVERSITY OF AKRON 7731
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/10/1997 - 05/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: R K EBY
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 3 52344 UNIVERSITY OF AKRON 7732
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/28/1998 - 05/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R K EBY
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 1280 UNIVERSITY OF CINCINNATI 7733
 STRUCTURAL SIMILITUDE AND SCALING LAWS - FDP
 06/12/1991 - 06/03/1998 FY99: \$0 Total: \$344,619
Prin. Invest.: G J SIMITSES
Tech. Officer: LARC/J H STARNES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2071 UNIVERSITY OF CINCINNATI 7734
 STRUCTURAL SIMILITUDE AND SCALING LAWS
 05/20/1998 - 05/31/2000 FY99: \$55,000 Total: \$82,000
Prin. Invest.: G J SIMITSES
Tech. Officer: LARC/J H STARNES, JR.
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1706 UNIVERSITY OF CINCINNATI 7735
 A NOVEL SILICON MICROMACHINED INTEGRATED MCM THERMAL MAN-
 AGEMENT SYSTEM
 04/13/1995 - 10/12/1999 FY99: \$10,000 Total: \$346,436
Prin. Invest.: M J KAZMIERCZAK, F M GERNER, H T HENDERSON
Tech. Officer: GRC/K W BAKER, GRC/J CALOGEVAS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1765 UNIVERSITY OF CINCINNATI 7736
 EMERGING ETHNIC ENGINEERS PROGRAM
 07/07/1995 - 06/30/1998 FY99: \$0 Total: \$208,479
Prin. Invest.: E N PRATHER
Tech. Officer: GRC/S A MERRITT, GRC/J E BOYD
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 1987 UNIVERSITY OF CINCINNATI 7737
 INVESTIGATION OF SIMPLEX NOZZLES FOR ADVANCED COMBUSTORS
 11/06/1996 - 10/31/1999 FY99: \$87,769 Total: \$220,485
Prin. Invest.: S M JENG
Tech. Officer: GRC/R R TACINA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2087 UNIVERSITY OF CINCINNATI 7738
 DATA BASE FOR REALISTIC COMPUTATIONAL MODELING OF INLET/COM-
 PRESSOR INTERFACES DURING RAPID FLOW TRAN
 01/16/1998 - 11/30/1999 FY99: \$142,025 Total: \$252,017
Prin. Invest.: M SAJBEN
Tech. Officer: GRC/G L COLE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2281 UNIVERSITY OF CINCINNATI 7739
 DEVELOPMENT OF A MACROPOROUS SI WICK BASED HEAT ENGINE FOR
 HEAT TRANSFER FROM MICRO DEVICES
 07/20/1999 - 01/20/2000 FY99: \$45,000 Total: \$45,000
Prin. Invest.: H HENDERSON
Tech. Officer: GRC/S M GENG
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 6946 UNIVERSITY OF CINCINNATI 7740
 ORDOVICIAN BIODIVERSITY: GEOGRAPHY AND ENVIRONMENT
 02/12/1998 - 03/31/2000 FY99: \$50,000 Total: \$100,000
Prin. Invest.: A I MILLER
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 7098 UNIVERSITY OF CINCINNATI 7741
 USING LANDSAT DATA TO DEVELOP AN IMAGE BASED LOGISTIC REGRES-
 SION MODEL FOR PREDICTING DEFORESTATION
 05/28/1998 - 11/30/1999 FY99: \$0 Total: \$153,878
Prin. Invest.: R C FROHN
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 924 UNIVERSITY OF CINCINNATI 7742
 OFF NOMINAL PERFORMANCE ANALYSIS OF FUTURE EVA MANEUVERING
 SYSTEMS
 01/29/1997 - 11/02/1999 FY99: \$0 Total: \$59,876
Prin. Invest.: T W LEWIS
Tech. Officer: JSC/K W LEWIS
CASE Category: 41 - AERONAUTICAL ENGR

NAGW 1407 UNIVERSITY OF CINCINNATI 7743
 UNIVERSITY SPACE ENGINEERING RESEARCH CENTER
 08/17/1988 - 01/30/1998 FY99: -\$70,711 Total: \$8,339,238
Prin. Invest.: L M GALES
Tech. Officer: HQ/S C HARTMAN
CASE Category: 49 - ENGINEERING, OTHER

NCC 2 950 UNIVERSITY OF CINCINNATI 7744
 ADVANCED TRAJECTORY ANALYSIS WITH APPLICATION TO AIR TRAFFIC
 CONTROL
 05/17/1996 - 10/31/1998 FY99: \$0 Total: \$78,324
Prin. Invest.: G L SLATER
Tech. Officer: ARC/H N SWENSON, ARC/T J DAVIS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 1139 UNIVERSITY OF CINCINNATI 7745
 ADVANCED TRAJECTORY ANALYSIS WITH APPLICATION TO A IR TRAFFIC CONTROL
 09/03/1999 - 11/30/1999 FY99: \$10,000 Total: \$10,000
Prin. Invest.: G L SLATER, NONE
Tech. Officer: ARC/T J DAVIS, ARC/D R ISAACSON
CASE Category: 41 - AERONAUTICAL ENGR

NGT 10031 UNIVERSITY OF CINCINNATI 7746
 A TRAINING PROPOSAL FOR UNIVERSITY SPACE ENGINEERING RESEARCH CENTER GRADUATE STUDENTS
 12/16/1994 - 10/01/1998 FY99: -\$2,242 Total: \$336,906
Prin. Invest.: L P COOPER
Tech. Officer: HQ/T R BRUNEEL
CASE Category: 43 - CHEMICAL ENGR

NGT 30321 UNIVERSITY OF CINCINNATI 7747
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/10/1995 - 03/31/1998 FY99: -\$349 Total: \$43,651
Prin. Invest.: S ISLAM
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30326 UNIVERSITY OF CINCINNATI 7748
 GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/05/1995 - 03/31/1998 FY99: -\$4,290 Total: \$39,710
Prin. Invest.: S ISLAM
Tech. Officer: HQ/G ASRAR, HQ/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 1 52140 UNIVERSITY OF CINCINNATI 7749
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/26/1996 - 09/30/1997 FY99: \$1 Total: \$27,501
Prin. Invest.: S K DURLAK
Tech. Officer: LARC/B E ANDERSON, LARC/J M HOELL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 2 52205 UNIVERSITY OF CINCINNATI 7750
 THE DEPARTURE PROBLEM IN AIR TRAFFIC MANAGEMENT: ANALYSIS CONTROL STRATEGIES & IMPLEMENTATION
 09/14/1995 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: G L SLATER, M A BOLENDER
Tech. Officer: ARC/T J DAVIS, ARC/J ERZBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30049 UNIVERSITY OF CINCINNATI 7751
 USE OF RAINGAGE AND RADAR MEASUREMENTS OF PRECIPIT CALIBRATION AND GROUND VALIDATION OF SATELLITE DATA
 09/06/1997 - 08/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: S ISLAM
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30058 UNIVERSITY OF CINCINNATI 7752
 THIRD YEAR FUNDING: ANALYZING AND PARAMETERIZING HETEROGENEITY ON LAND SURFACE REPRESENTATIONS & RE
 09/06/1997 - 08/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: S ISLAM
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30108 UNIVERSITY OF CINCINNATI 7753
 SPACE-TIME CHARACTERIZATION OF REMOTELY SENSED SOIL MOISTURE
 02/10/1998 - 09/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: S ISLAM
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50040 UNIVERSITY OF CINCINNATI 7754
 A THEORY FOR THE EXACT INTEGRATION OF A REFERENCE ATTITUDE PROGRAM FORMULATED AS PERTURBED JACOBI
 08/15/1997 - 08/31/2000 FY99: \$0 Total: \$44,000
Prin. Invest.: P L RICHARDSON
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50265 UNIVERSITY OF CINCINNATI 7755
 NEGATIVE REGULATION OF OSTEOCLASTOGENESIS BY ESTROGENS VIA DIRECT ACTIONS ON HEMATOPOIETIC CELLS
 07/07/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J W PIKE
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52801 UNIVERSITY OF CINCINNATI 7756
 GRADSTUDENT RESEARCH PROGRAM
 07/28/1995 - 07/31/1999 FY99: \$0 Total: \$88,000
Prin. Invest.: K N GHIA
Tech. Officer: MSFC/P K MCCONNAUGHEY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1327 UNIVERSITY OF DAYTON 7757
 DETERMINATION OF OPERATIONAL AND SUPPORT REQUIREMENTS AND COSTS DURING CONCEPTUAL DESIGN OF SPACE
 07/26/1991 - 12/31/1997 FY99: -\$654 Total: \$365,573
Prin. Invest.: C E EBELING
Tech. Officer: LARC/W D MORRIS
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1919 UNIVERSITY OF DAYTON 7758
 A STUDY OF THE MICROSCALE FLUID PHYSICS IN THE NEAR CONTACT REGION OF AN EVAPORATING CAP MENISCUS
 07/10/1996 - 08/08/1998 FY99: \$0 Total: \$301,351
Prin. Invest.: K P HALLINAN
Tech. Officer: GRC/J C DUH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 4575 UNIVERSITY OF DAYTON 7759
 INTERSTELLAR DIAMOND GRAINS: SYNTHETIC AND NATURAL
 09/12/1997 - 04/30/2000 FY99: \$25,000 Total: \$100,000
Prin. Invest.: D PHELPS
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8199 UNIVERSITY OF DAYTON 7760
 EXPERIMENTAL STUDIES OF FE-MG CARBONATES AS INDICATORS OF MARTIAN NEAR-SURFACE CONDITIONS
 02/04/1999 - 02/14/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: D M KOZOL
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8451 UNIVERSITY OF DAYTON 7761
 DIAMOND, MOISSANITE, AND OSBORNITE: PHYSICS AND CHEMISTRY OF
 INTER-STELLAR GRAIN FORMATION
 04/09/1999 - 05/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: A W PHELPS
Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 9 916 UNIVERSITY OF DAYTON 7762
 DEV PUBLIC DOMAIN FATIGUE CRACK FORMATION SW
 12/13/1996 - 09/01/1998 FY99: \$0 Total: \$201,765
Prin. Invest.: D E TRITSCH
Tech. Officer: JSC/R FOREMAN
 CASE Category: 11 - ASTRONOMY

NAS 1 99148 UNIVERSITY OF DAYTON 7763
 OPERATIONS AND MODELING ANALYSIS
 09/27/1999 - 10/31/2002 FY99: \$7,000 Total: \$7,000
Prin. Invest.: C E EBELING
Tech. Officer: LARC/W D MORRIS
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAS 8 98216 UNIVERSITY OF DAYTON 7764
 A NEW TECHNIQUE FOR ACHIEVING IMPACT VELOCITIES GREATER THAN
 10KM/S
 06/01/1998 - 01/31/2000 FY99: \$152,936 Total: \$299,558
Prin. Invest.: A J PIEKUTOWSKI
Tech. Officer: MSFC/G S OLSEN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 3 675 UNIVERSITY OF DAYTON 7765
 REACTION KERNEL STRUCTURE AND DILUTION FLAME STABILIZATION
 03/25/1999 - 01/13/2003 FY99: \$66,102 Total: \$66,102
Prin. Invest.: F TAKAHASHI
Tech. Officer: GRC/K R SACKSTEDER
 CASE Category: 49 - ENGINEERING, OTHER

NCC 3 703 UNIVERSITY OF DAYTON 7766
 INFRARED AVIONICS SIGNAL DISTRIBUTION INFRARED AVIONICS SIGNAL
 DISTRIBUTION
 04/23/1999 - 10/07/1999 FY99: \$46,686 Total: \$46,686
Prin. Invest.: M ATIQUZZAMAN
Tech. Officer: GRC/H NGUYEN
 CASE Category: 45 - ELECTRICAL ENGR

NCC 9 74 UNIVERSITY OF DAYTON 7767
 TRANSHAB HYPERVELOCITY IMPACT TESTS CONDUCTED BY UNIV OF
 DAYTON RESEARCH INSTITUTE
 08/13/1998 - 02/29/2000 FY99: \$0 Total: \$50,000
Prin. Invest.: A J PIEKUTOWSKI
Tech. Officer: JSC/E CHRISTIANSEN
 CASE Category: 13 - PHYSICS

NGT 3 52351 UNIVERSITY OF DAYTON 7768
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT
 RESEARCH PROGRAM
 06/23/1999 - 07/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: V JAIN
Tech. Officer: GRC/F J MONTEGANI
 CASE Category: 49 - ENGINEERING, OTHER

NAG 1 2244 UNIVERSITY OF TOLEDO 7769
 DEV DYNAM CONFIGURABLE OBJ-ORIENTED FRAMEWORK FOR DISTRIB'D
 MULTI-MODAL COMPUTATIONAL AEROSP SYS SIMULAT
 09/23/1999 - 08/31/2002 FY99: \$31,287 Total: \$31,287
Prin. Invest.: A AETEH, V A REED
Tech. Officer: LARC/W K GERDES
 CASE Category: 22 - COMPUTER SCIENCE

NAG 3 1718 UNIVERSITY OF TOLEDO 7770
 VLSI IMPLEMENTATION OF COMMUNICATIONS SYSTEMS
 03/23/1995 - 12/10/1999 FY99: \$25,000 Total: \$271,781
Prin. Invest.: S C KWATRA, M M JAMALI
Tech. Officer: GRC/R E JONES
 CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1750 UNIVERSITY OF TOLEDO 7771
 AN OBJECT-ORIENTED MODEL FOR SIMULATION
 05/24/1995 - 08/31/1998 FY99: \$0 Total: \$136,137
Prin. Invest.: A AFJENT
Tech. Officer: GRC/G J FOLLEN
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1803 UNIVERSITY OF TOLEDO 7772
 DEVELOPMENT OF AN AEROELASTIC ANALYSIS INCLUDING A VISCOUS
 FLOW MODEL
 01/23/1996 - 10/31/1997 FY99: -\$1,883 Total: \$139,035
Prin. Invest.: T G KEITH
Tech. Officer: GRC/A KURKOV
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1946 UNIVERSITY OF TOLEDO 7773
 KNOWLEDGE DISCOVERY PROCESS FOR CHARACTERIZATION OF
 MATERIALS FAILURE MECHANISM
 08/09/1996 - 05/31/1999 FY99: \$0 Total: \$66,171
Prin. Invest.: K J CLOS, NONE
Tech. Officer: GRC/G Y BAAKUNI
 CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1967 UNIVERSITY OF TOLEDO 7774
 BANDGAP ENGINEERING AND CIRCUIT DESIGN FOR LOW TEMPERATURE
 SPACE-BORNE POWER ELECTRONICS
 09/07/1996 - 12/31/1999 FY99: \$0 Total: \$105,386
Prin. Invest.: Y J KAPOOR, M A SMITH
Tech. Officer: GRC/R L PATTERSON, GRC/J E DICKMAN
 CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2041 UNIVERSITY OF TOLEDO 7775
 INVESTIGATION OF A METHOD TO REDUCE CAVITATION DAMAGE IN DIE-
 SEL ENGINE BEARINGS
 04/29/1997 - 01/01/1998 FY99: -\$2,160 Total: \$36,617
Prin. Invest.: T G KEITH, JR.
Tech. Officer: GRC/D E BREWE
 CASE Category: 13 - PHYSICS

NAG 3 2177 UNIVERSITY OF TOLEDO 7776
 INTEGRATION OF DATA SHARING WITH PROPULSION SYSTEMS SIMULA-
 TION MODELS
 06/29/1998 - 05/12/1999 FY99: \$0 Total: \$30,000
Prin. Invest.: A A AFJEH
Tech. Officer: GRC/G J FOLLEN
 CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2181 UNIVERSITY OF TOLEDO 7777
 DATA MINING & OPTIMIZATION TOOLS FOR DEVELOPING ENGINE PARAMETER MODELS
 07/09/1998 - 08/30/1998 FY99: -\$50 Total: \$4,950
Prin. Invest.: A P DHAWAN
Tech. Officer: GRC/D SIMON
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2264 UNIVERSITY OF TOLEDO 7778
 GEOMETRY INTEGRATION INTO NUMERICAL PROPULSION SYSTEMS SIMULATION ARCHITECTURE
 05/04/1999 - 04/26/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: A A AFEH
Tech. Officer: GRC/G J FOLLEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2269 UNIVERSITY OF TOLEDO 7779
 DEVELOPMENT OF NOVEL METHODS FOR THE REDUCTION OF NOISE AND WEIGHT IN HELICOPTER TRANSMISSIONS
 06/29/1999 - 12/27/2000 FY99: \$50,052 Total: \$50,052
Prin. Invest.: T G KEITH
Tech. Officer: GRC/T L KRANTZ
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2282 UNIVERSITY OF TOLEDO 7780
 DATA MINING AND OPTIMIZATION TOOLS FOR DEVELOPING ENGINE PARAMETER MODELS
 07/20/1999 - 02/07/2000 FY99: \$31,000 Total: \$31,000
Prin. Invest.: A P DHAWAN, NONE
Tech. Officer: GRC/J LITT
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 4 168 UNIVERSITY OF TOLEDO 7781
 MODAL FILTERING USING OPTIMAL WAVELET BASIS
 05/26/1999 - 11/26/1999 FY99: \$10,000 Total: \$10,000
Prin. Invest.: J D JOHNSON
Tech. Officer: DFRG/R LIND
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3248 UNIVERSITY OF TOLEDO 7782
 THE EFFECT OF ROTATION ON STELLAR WINDS: ASYMMETRIES AND BIPOLAR STRUCTURES IN CIRCUMS
 10/09/1996 - 08/31/2000 FY99: \$100,000 Total: \$300,000
Prin. Invest.: J E BJORKMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3367 UNIVERSITY OF TOLEDO 7783
 RADIATIVE TRANSFER ANALYSIS OF DUSTY ASTRONOMICAL SYSTEMS
 08/28/1996 - 12/31/1997 FY99: -\$1,528 Total: \$92,550
Prin. Invest.: A N WITT
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3447 UNIVERSITY OF TOLEDO 7784
 EFFECTS OF ROTATION AND REVISED IONIZATION BALANCE MASS-LOSS RATES FOR B STARS
 10/10/1996 - 10/14/2000 FY99: \$50,000 Total: \$150,000
Prin. Invest.: K BJORKMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3790 UNIVERSITY OF TOLEDO 7785
 OPTICAL PROPERTIES OF CARBONACEOUS GRAIN MANTLE MA PURITIES
 03/10/1997 - 02/29/2000 FY99: \$81,173 Total: \$186,169
Prin. Invest.: D N WITT
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4338 UNIVERSITY OF TOLEDO 7786
 NEAR-IR EMISSION AND ABSORPTION CHARACTERISTICS OF MANTLE MATERIALS
 04/21/1997 - 03/31/2000 FY99: \$43,667 Total: \$126,000
Prin. Invest.: D N WITT
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4957 UNIVERSITY OF TOLEDO 7787
 THE EVOLUTION OF INTERSTELLAR GAS - MASSIVE STARS
 06/27/1997 - 06/30/2000 FY99: \$83,000 Total: \$240,000
Prin. Invest.: S R FEDERMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6624 UNIVERSITY OF TOLEDO 7788
 MAPPING THE DIFFUSE GALACTIC LIGHT AND EXTENDED RED EMISSION WITH PIONEER10 AND 11
 11/20/1997 - 12/31/1999 FY99: \$54,176 Total: \$103,052
Prin. Invest.: A WITT
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6729 UNIVERSITY OF TOLEDO 7789
 OSCILLATOR STRENGTHS FOR ULTRAVIOLET ATOMIC AND MOLECULAR TRANSITIONS
 12/11/1997 - 12/31/1998 FY99: \$0 Total: \$40,000
Prin. Invest.: S R FEDERMAN
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 7754 UNIVERSITY OF TOLEDO 7790
 OSCILLATOR STRENGTHS FOR ULTRAVIOLET ATOMIC AND MOLECULAR TRANSITIONS
 11/25/1998 - 12/31/1999 FY99: \$60,000 Total: \$60,000
Prin. Invest.: S R FEDERMAN
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 8052 UNIVERSITY OF TOLEDO 7791
 TERRESTRIAL ENVIRONMENT VARIABLES DERIVED FROM EOS PLATFORM SENSORS
 01/15/1999 - 01/31/2000 FY99: \$28,935 Total: \$28,935
Prin. Invest.: K P CZAJKOWSKI
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8054 UNIVERSITY OF TOLEDO 7792
 CIRCUMSTELLAR ENVIRONMENTS OF HIGH- AND INTERMEDIATE-MASS STARS: FROM THE PRE-MAIN-SEQUENCE TO LB
 01/19/1999 - 01/14/2000 FY99: \$97,214 Total: \$97,214
Prin. Invest.: K S BJORKMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8183 UNIVERSITY OF TOLEDO 7793
 DUST AND CONDENSATE CLOUDS IN THE MARTIAN POLAR REGIONS
 02/16/1999 - 02/29/2000 FY99: \$60,600 Total: \$60,600
Prin. Invest.: P B JAMES
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8671 UNIVERSITY OF TOLEDO 7794
 USE OF THERMAL INFRARED SATELLITE DATA IN CLIMATE CHANGE STUDIES
 07/08/1999 - 07/14/2000 FY99: \$106,253 Total: \$106,253
Prin. Invest.: K P CZAJKOWSKI
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8785 UNIVERSITY OF TOLEDO 7795
 A NEW CLASS OF UNNATURAL FOLDING OLIGOMERS: HELICES WITH NANO-SIZED CAVITIES
 08/26/1999 - 08/30/2000 FY99: \$77,500 Total: \$77,500
Prin. Invest.: B GONG
Tech. Officer: GSFC/R CROUCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8794 UNIVERSITY OF TOLEDO 7796
 THE GEOMETRY AND EVOLUTION OF LOW-MASS STAR FORMATION (ATP 98)
 09/07/1999 - 09/14/2000 FY99: \$20,000 Total: \$20,000
Prin. Invest.: J E BJORKMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 8 1380 UNIVERSITY OF TOLEDO 7797
 FOR RESEARCH ENTITLED "SEARCHING FOR THE BEST PROTEIN CRYSTALS"
 06/19/1997 - 12/30/2000 FY99: \$136,500 Total: \$322,000
Prin. Invest.: G BORGOTAH
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1578 UNIVERSITY OF TOLEDO 7798
 INFLUENCE OF IMPURITIES ON PROTEIN CRYSTAL GROWTH
 01/28/1999 - 11/30/2002 FY99: \$101,000 Total: \$101,000
Prin. Invest.: C A SCHALL
Tech. Officer: MSFC/B GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5215 UNIVERSITY OF TOLEDO 7799
 EVALUATION OF CATALYTIC WET OXIDATION FOR THE ULTIMATE CONVERSION OF SOLID WASTES
 05/13/1997 - 06/30/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: M ABRAHAM
Tech. Officer: ARC/J FISHER
CASE Category: 43 - CHEMICAL ENGR

NCC 2 5220 UNIVERSITY OF TOLEDO 7800
 OXYGEN SCRUBBING IN PLANT GROWTH CHAMBERS USING SOLID OXIDE ELECTROLYZERS
 06/11/1997 - 11/30/1997 FY99: -\$1,462 Total: \$40,692
Prin. Invest.: K R SRIDHAR
Tech. Officer: ARC/H W JONES
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 3 513 UNIVERSITY OF TOLEDO 7801
 IMPROVED MODEL FOR THE OXIDATIVE PYROLYSIS OF HYDROCARBON FUELS
 11/06/1996 - 11/29/1999 FY99: \$85,101 Total: \$302,808
Prin. Invest.: K J DEWITT
Tech. Officer: GRC/K P KUNDU
CASE Category: 12 - CHEMISTRY

NCC 3 523 UNIVERSITY OF TOLEDO 7802
 COMPUTATION OF REACTING FLOWS IN COMBUSTION PROCESSES USING UNSTRUCTURED GRIDS
 12/26/1996 - 11/30/1999 FY99: \$123,047 Total: \$343,741
Prin. Invest.: T G KEITH
Tech. Officer: GRC/R STUBBS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 524 UNIVERSITY OF TOLEDO 7803
 COMPUTATIONAL SIMULATION OF COMPOSITE BEHAVIOR
 12/26/1996 - 11/29/1999 FY99: \$114,659 Total: \$325,928
Prin. Invest.: T G KEITH
Tech. Officer: GRC/P MURTHY
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 527 UNIVERSITY OF TOLEDO 7804
 AEROELASTIC ANALYSIS FOR AEROPROPULSION APPLICATIONS
 12/26/1996 - 12/13/1999 FY99: \$100,946 Total: \$234,068
Prin. Invest.: T G KEITH, JR.
Tech. Officer: GRC/O MEHMED, GRC/G L STEFKO
CASE Category: 46 - MECHANICAL ENGR

NCC 3 553 UNIVERSITY OF TOLEDO 7805
 EXPERIMENTAL EVALUATION OF JOURNAL BEARING STABILITY & NEW GAS WAVE BEARING MATERIAL
 04/16/1997 - 01/31/1998 FY99: -\$210 Total: \$94,571
Prin. Invest.: T G KEITH
Tech. Officer: GRC/M P PROCTOR
CASE Category: 46 - MECHANICAL ENGR

NCC 3 565 UNIVERSITY OF TOLEDO 7806
 MARS PATHFINDER WHEEL ABRASION EXPERIMENT GROUND
 07/01/1997 - 06/30/1998 FY99: -\$2 Total: \$15,998
Prin. Invest.: T G KEITH
Tech. Officer: GRC/R L FUSARO
CASE Category: 46 - MECHANICAL ENGR

NCC 3 584 UNIVERSITY OF TOLEDO 7807
 OPTICAL POWER EXTRACTORS AND CONCENTRATORS OPTICAL POWER EXTRACTORS AND CONCENTRATORS
 12/18/1997 - 11/04/1998 FY99: -\$3,672 Total: \$30,284
Prin. Invest.: S GILES
Tech. Officer: GSFC/G ADAWOVSKY
CASE Category: 13 - PHYSICS

NCC 3 596 UNIVERSITY OF TOLEDO 7808
 APPLICATION OF AEROELASTIC SOLVERS BASED ON NAVIER-STOKES EQUATIONS
 01/14/1998 - 11/30/1999 FY99: \$106,112 Total: \$205,706
Prin. Invest.: T G KEITH
Tech. Officer: GRC/D JANETZKE
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 604 UNIVERSITY OF TOLEDO 7809
 DEVELOPMENT OF AN AEROELASTIC ANALYSIS INCLUDING A VISCOUS
 FLOW MODEL
 03/27/1998 - 11/29/1999 FY99: \$106,218 Total: \$164,679
Prin. Invest.: J G KEITH
Tech. Officer: GRC/A P KURKOR
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 605 UNIVERSITY OF TOLEDO 7810
 AEROELASTIC STABILITY AND RESPONSE OF ROTATING STRUCTURES
 04/03/1998 - 11/29/1999 FY99: \$108,509 Total: \$208,804
Prin. Invest.: T KEITH
Tech. Officer: GRC/O MEHMED
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 616 UNIVERSITY OF TOLEDO 7811
 STUDY OF WAVE JOURNAL BEARINGS WITH LIQUID LUBRICANTS
 05/18/1998 - 05/21/1999 FY99: \$60,000 Total: \$114,812
Prin. Invest.: T G KEITH, F DIMOFTE
Tech. Officer: GRC/M P PROCTOR
CASE Category: 46 - MECHANICAL ENGR

NCC 3 639 UNIVERSITY OF TOLEDO 7812
 EXPERIMENTAL & ANALYTICAL INVESTIGATION OF SOLID-LUBRICATED
 BACKUP BEARINGS
 07/28/1998 - 07/07/1999 FY99: \$0 Total: \$15,000
Prin. Invest.: T G KEITH
Tech. Officer: GRC/R L FUSARO
CASE Category: 46 - MECHANICAL ENGR

NCC 3 717 UNIVERSITY OF TOLEDO 7813
 MULTI-STAGE AEROELASTIC ANALYSIS FOR PROPULSION MULTI-STAGE
 AEROELASTIC ANALYSIS FOR PROPULSION
 06/29/1999 - 10/14/1999 FY99: \$33,730 Total: \$33,730
Prin. Invest.: T G KEITH, JR.
Tech. Officer: GRC/O MEHMED
CASE Category: 46 - MECHANICAL ENGR

NCC 3 719 UNIVERSITY OF TOLEDO 7814
 CENTRIFUGAL COMPRESSOR AEROELASTIC ANALYSIS CODE CENTRIFUGAL
 COMPRESSOR AEROELASTIC ANALYSIS CODE
 06/24/1999 - 10/20/1999 FY99: \$33,730 Total: \$33,730
Prin. Invest.: T G KEITH
Tech. Officer: GRC/D C JANETZKE
CASE Category: 49 - ENGINEERING, OTHER

NCC 8 134 UNIVERSITY OF TOLEDO 7815
 INVESTIGATION OF THE GROWTH MECHANISM OF TETRAGONAL LYSO-
 ZYME CRYSTALS
 03/13/1997 - 03/13/2000 FY99: \$72,627 Total: \$258,538
Prin. Invest.: A NADARAJAH
Tech. Officer: MSFC/M L PUSEY
CASE Category: 12 - CHEMISTRY

NGT 3 52342 UNIVERSITY OF TOLEDO 7816
 MICROMACHINED CANTILEVERED TRANSMISSION LINE SWITCHES FOR
 MICROWAVE APPLICATIONS
 07/18/1998 - 05/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: D J KAPOOR
Tech. Officer: GRC/D MONTEGANI
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 535 WILBERFORCE UNIVERSITY 7817
 WILBERFORCE POWER TECHNOLOGY IN EDUCATION PROGRAM
 01/27/1997 - 12/06/1999 FY99: \$110,000 Total: \$315,000
Prin. Invest.: H C SMITHERMAN
Tech. Officer: GRC/A F HEPP
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3535 WITTENBERG UNIVERSITY 7818
 THE ABUNDANCES OF THE IRON GROUP ELEMENTS IN EARLY
 01/28/1997 - 12/14/1997 FY99: -\$3,502 Total: \$4,697
Prin. Invest.: J A GRIGSBY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 2 1237 WRIGHT STATE UNIVERSITY 7819
 ROLES FOR TECHNOLOGY IN THE FACILITATION OF DISTRIBUTED WORK
 IN COMPLEX DYNAMIC DOMAINS
 07/16/1998 - 11/30/1999 FY99: \$64,813 Total: \$94,813
Prin. Invest.: V L SHALIN
Tech. Officer: ARC/W J CLANCEY
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4188 WRIGHT STATE UNIVERSITY 7820
 MODEL STUDIES OF EXCITED STATES OF N₂ AND N₂⁺ IN THE IONOSPHERE
 03/27/1997 - 03/31/2000 FY99: \$34,914 Total: \$136,722
Prin. Invest.: D L FOX
Tech. Officer: GSFC/M M MELLOTT, SR
CASE Category: 13 - PHYSICS

NAG 5 6557 WRIGHT STATE UNIVERSITY 7821
 MTGCM STUDIES OF THE MARTIAN THERMOSPHERE-IONOSPHERE
 12/08/1997 - 06/30/1999 FY99: \$0 Total: \$20,219
Prin. Invest.: D FOX
Tech. Officer: GSFC/D BEEBEE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30091 WRIGHT STATE UNIVERSITY 7822
 AEROSPACE MEDICINE TRAINING PROGRAM
 09/11/1997 - 06/30/2000 FY99: \$746,020 Total: \$1,456,212
Prin. Invest.: S R MOHLER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 50213 WRIGHT STATE UNIVERSITY 7823
 THREE-DIMENSIONAL AUDIO PRESENTATION SYSTEM EFFECTIVENESS
 IN HYPERGRAVITY AND HYPOGRAVITY
 07/22/1998 - 08/31/2001 FY99: \$0 Total: \$22,000
Prin. Invest.: R H GILKEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 69 - PSYCHOLOGY, OTHER

NGT36 24790 WRIGHT STATE UNIVERSITY 7824
 AEROSPACE MEDICINE RESIDENCY PROGRAM
 07/01/1978 - 06/30/1998 FY99: -\$53,848 Total: \$7,544,303
Prin. Invest.: S MOHLER
Tech. Officer: HQ/F D EVANS, HQ/A E NICOGOSSIAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1108 **YOUNGSTOWN STATE UNIVERSITY** **7825**
 JOVE
 10/21/1994 - 08/31/1998 FY99: \$0 Total: \$112,797
 Prin. Invest.: J ALAM, R BEIERSDORFER, D ROST
 Tech. Officer: MSFC/F SIX
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

OKLAHOMA

NAG 5 6582 **MURRAY STATE COLLEGE - OKLA.** **7826**
 HYPERSPECTRAL REMOTE SENSING AND ECOLOGICAL MODELING
 RESEARCH & EDUCATION AT THEMID-AMERICA REMOTE
 12/08/1997 - 10/31/1998 FY99: \$0 Total: \$63,830
 Prin. Invest.: H CETIN Prin. Invest.: NONE
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 3 1852 **OKLAHOMA STATE UNIVERSITY** **7827**
 STUDIES OF PARTICLES SEDIMENTATION BY NOVEL SCATTERING TECH-
 NIQUE
 05/01/1996 - 04/30/2000 FY99: \$99,992 Total: \$305,992
 Prin. Invest.: O TONG, B ACKERSON, NONE
 Tech. Officer: GRC/B SINGH
 CASE Category: 13 - PHYSICS

NAG 4 154 **OKLAHOMA STATE UNIVERSITY** **7828**
 AEROSERVOELASTIC AND FLIGHT DYNAMICS ANALYSIS USING COMPUTA-
 TIONAL FLUID DYNAMICS
 03/30/1998 - 03/31/1999 FY99: \$30,800 Total: \$52,799
 Prin. Invest.: A ARENA, JR.
 Tech. Officer: DFRC/K K GUPTA
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 176 **OKLAHOMA STATE UNIVERSITY** **7829**
 CFD AEROSERVOELASTIC & FLIGHT DYNAMICS ANALYSIS
 09/16/1999 - 09/16/2000 FY99: \$18,755 Total: \$18,755
 Prin. Invest.: A ARENA, JR.
 Tech. Officer: DFRC/K K GUPTA
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 7451 **OKLAHOMA STATE UNIVERSITY** **7830**
 TERRESTRIAL ENVIRONMENTAL VARIABLES DERIVED FROM EARTH SURFACE
 FORM SENSORS
 07/09/1998 - 07/31/2001 FY99: \$16,216 Total: \$30,626
 Prin. Invest.: S J STADLER
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 1159 **OKLAHOMA STATE UNIVERSITY** **7831**
 ROLE OF VITAMIN E IN PREVENTING BOND DAMAGE
 09/29/1999 - 09/30/2002 FY99: \$34,377 Total: \$34,377
 Prin. Invest.: B J STOECKER
 Tech. Officer: JSC/C LLOYD
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NASW 5043 **OKLAHOMA STATE UNIVERSITY** **7832**
 OPERATION OF AEROSPACE EDUCATION SERVICES PROGRAM
 09/25/1995 - 09/30/2000 FY99: \$5,551,472 Total: \$25,639,422
 Prin. Invest.: K WIGGINS
 Tech. Officer: HQ/L BILBROUGH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 185 **OKLAHOMA STATE UNIVERSITY** **7833**
 TEACHING FROM SPACE PROGRAM
 04/03/1997 - 11/30/1999 FY99: \$881,952 Total: \$2,293,115
 Prin. Invest.: K E WIGGINS
 Tech. Officer: GSFC/P L MOUNTJOY
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCCW 5 **OKLAHOMA STATE UNIVERSITY** **7834**
 NASA'S TEACHER IN SPACE PROJECT
 10/16/1985 - 09/30/1997 FY99: -\$15,427 Total: \$6,487,079
 Prin. Invest.: K WIGGINS
 Tech. Officer: HQ/L BILBROUGH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 4 52402 **OKLAHOMA STATE UNIVERSITY** **7835**
 COMPUTATIONAL AEROSERVOELASTIC ANALYSIS OF HYPERSONIC
 VEHICLE CONFIGURATIONS
 07/16/1996 - 07/31/1999 FY99: \$0 Total: \$66,000
 Prin. Invest.: D S ARENA, JR.
 Tech. Officer: DFRC/K GUPTA, DFRC/L S VOELKER
 CASE Category: 41 - AERONAUTICAL ENGR

NGT 4 52412 **OKLAHOMA STATE UNIVERSITY** **7836**
 AEROSERVOELASTIC AND FLIGHT DYNAMICS
 05/12/1999 - 07/31/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: A ARENA
 Tech. Officer: DFRC/K GUPTA
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 6231 **ORAL ROBERTS UNIVERSITY** **7837**
 THE DEVELOPMENT OF AN EXPERIMENTAL APPARATUS TO TEST SPINNING
 SPACECRAFT UNDER THRUST
 08/19/1997 - 07/31/1999 FY99: \$0 Total: \$27,000
 Prin. Invest.: T H STENGLE
 Tech. Officer: GSFC/T H STENGLE
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 7378 **ORAL ROBERTS UNIVERSITY** **7838**
 EXPERIMENTAL APPARATUS TO TEST THE STABILITY OF SPINNING
 SPACECRAFT UNDER THRUST
 05/06/1998 - 05/14/2000 FY99: \$0 Total: \$48,000
 Prin. Invest.: D HALSMER
 Tech. Officer: GSFC/R HARMAN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2059 **UNIVERSITY OF OKLAHOMA - NORMAN** **7839**
 DEVELOPMENT OF A WIRELESS TELEMETRY SYSTEM FOR WIND TUNNEL
 APPLICATIONS
 04/21/1998 - 11/30/1998 FY99: \$0 Total: \$69,998
 Prin. Invest.: J R CRUZ
 Tech. Officer: LARC/S K KAHNG
 CASE Category: 46 - MECHANICAL ENGR

NAG 1 2178 UNIVERSITY OF OKLAHOMA - NORMAN 7840
 A STUDY ON EMBEDDED HIGH-SPEED WIRELESS TELEMETRY SYSTEMS
 FOR WIND TUNNEL APPLICATIONS, PHASE II
 03/31/1999 - 12/31/2000 FY99: \$101,392 Total: \$101,392
Prin. Invest.: J R CRUZ
Tech. Officer: LARC/S K KAHNG
 CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1594 UNIVERSITY OF OKLAHOMA - NORMAN 7841
 EFFECTS OF ENERGY RELEASE ON NEAR FIELD FLOW STRUCTURE OF
 GAS JETS
 06/02/1994 - 09/30/1999 FY99: \$0 Total: \$450,000
Prin. Invest.: A K AGRAWAL, S R GOLLAHALLI
Tech. Officer: GRC/H D ROSS
 CASE Category: 46 - MECHANICAL ENGR

NAG 5 3214 UNIVERSITY OF OKLAHOMA - NORMAN 7842
 X-RAYS FROM THE CENTRAL RADIO SOURCE IN NGC 7331
 04/19/1996 - 10/31/1998 FY99: -\$4,508 Total: \$3,015
Prin. Invest.: W ROMANISHIN
Tech. Officer: GSFC/R PETRE
 CASE Category: 11 - ASTRONOMY

NAG 5 3505 UNIVERSITY OF OKLAHOMA - NORMAN 7843
 MULTIWAVELENGTH STUDIES OF SUPERNOVAE
 11/25/1996 - 09/30/2000 FY99: \$50,000 Total: \$200,000
Prin. Invest.: E A BARON
Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 6717 UNIVERSITY OF OKLAHOMA - NORMAN 7844
 CENTER OF EXCELLENCE IN APPLICATION OF REMOTE SENSING TO
 REGIONAL AND GLOBAL INTEGRATED ENVIRONMENT
 12/10/1997 - 12/15/1999 FY99: \$0 Total: \$338,661
Prin. Invest.: K HUMES
Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1271 UNIVERSITY OF OKLAHOMA - NORMAN 7845
 MICROGRAVITY IMPREGNATION OF FIBER PREFORMS
 05/02/1996 - 05/15/2000 FY99: \$100,000 Total: \$350,000
Prin. Invest.: M C ALTAN, B GRADY, F C LAI
Tech. Officer: MSFC/D R WOODARD, MSFC/R W ALLEN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 3 26957 UNIVERSITY OF OKLAHOMA - NORMAN 7846
 ACTS PROPAGATION EXPERIMENTS
 05/13/1993 - 03/31/2000 FY99: \$42,737 Total: \$527,192
Prin. Invest.: R K CRANE
Tech. Officer: GRC/R J GUNDERMAN
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 171 UNIVERSITY OF OKLAHOMA - NORMAN 7847
 TO SUPPORT RESEARCH UNDER THE EXPERIMENTAL PROGRAM COM-
 PETITIVE RESEARCH
 12/16/1996 - 11/14/1999 FY99: \$500,000 Total: \$1,500,000
Prin. Invest.: S DUCA
Tech. Officer: GSFC/L KEFFER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 398 UNIVERSITY OF OKLAHOMA - NORMAN 7848
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/14/1999 - 09/15/2000 FY99: \$223,800 Total: \$223,800
Prin. Invest.: V DUC-SNOWDEN
Tech. Officer: GSFC/D DETROYE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 30308 UNIVERSITY OF OKLAHOMA - NORMAN 7849
 GLOBAL CHANGE FELLOWSHIP AWARD
 09/12/1995 - 08/31/1998 FY99: -\$1,331 Total: \$42,669
Prin. Invest.: P J MCCANN
Tech. Officer: HQ/M LUTHER, HQ/G ASRAR
 CASE Category: 45 - ELECTRICAL ENGR

NGT 40052 UNIVERSITY OF OKLAHOMA - NORMAN 7850
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 09/03/1991 - 02/28/1998 FY99: -\$15,519 Total: \$1,059,344
Prin. Invest.: K L HOVING
Tech. Officer: HQ/E T SCHWARTZ
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30103 UNIVERSITY OF OKLAHOMA - NORMAN 7851
 THIRD YEAR: "NEW TUNABLE DIODE LASERS FOR MOLECUL
 09/17/1997 - 02/28/1999 FY99: -\$31 Total: \$21,969
Prin. Invest.: P J MCCANN
Tech. Officer: GSFC/G ASRAR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30151 UNIVERSITY OF OKLAHOMA - NORMAN 7852
 INVESTIGATION OF LAND-ATMOSPHERE INTERACTIONS USING THE
 OKLAHOMAMESONET/NASA EARTH SCIENCE
 09/01/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: K CRAWFORD
Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40013 UNIVERSITY OF OKLAHOMA - NORMAN 7853
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 01/30/1997 - 02/28/2000 FY99: \$212,500 Total: \$595,000
Prin. Invest.: V DUCA
Tech. Officer: GSFC/L KEFFER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

OREGON

NAG 2 1268 OREGON GRADUATE INSTITUTE OF SCIENCE & TECH 7854
 VLSI NEUROTECHNOLOGY: MASSIVELY PARALLEL COMPUTING FOR
 AUTONOMOUS INTELLIGENCE
 09/16/1998 - 02/29/2000 FY99: \$0 Total: \$53,276
Prin. Invest.: D HAMMERSTROM
Tech. Officer: ARC/W F BROOKS, ARC/C C JORGENSEN
 CASE Category: 22 - COMPUTER SCIENCE

NCC 2 811 OREGON GRADUATE INSTITUTE OF SCIENCE & TECH 7855
 PERCEPTION-BASED SENSOR FUSION FOR AN AUGMENTED VISION SYSTEM
 07/16/1993 - 08/31/1999 FY99: \$0 Total: \$676,674
Prin. Invest.: M PAVEL
Tech. Officer: ARC/A J AHUMADA, ARC/C H NULL
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 2 1199 OREGON HEALTH SCIENCES UNIVERSITY 7856
 HOW DO CELL DIVISION PLANCES SPECIFY REGIONAL GENE EXPRESSION PATTERNS IN EARLY EMBRYOS?
 04/02/1998 - 09/14/1999 FY99: \$162,479 Total: \$230,952
Prin. Invest.: M V DANILCHIK
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 7869 OREGON HEALTH SCIENCES UNIVERSITY 7857
 HUMAN POSTURAL CONTROL DYNAMICS
 01/25/1999 - 12/31/1999 FY99: \$136,500 Total: \$136,500
Prin. Invest.: R PETERKA
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1263 OREGON STATE UNIVERSITY 7858
 CHARACTERIZATION OF CLOUDS AND ANISOTROPY OF EMITTED AND REFLECTED RADIANCES AS PART OF CERES
 05/07/1991 - 10/31/1998 FY99: \$0 Total: \$738,015
Prin. Invest.: J A COAKLEY
Tech. Officer: LARC/J W YOUNGBLOOD, LARC/B A WIELICKI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1123 OREGON STATE UNIVERSITY 7859
 ESTABLISHING STANDARDS FOR HPC SYSTEMS SOFTWARE & TOOLS
 03/14/1997 - 08/31/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: C M PANCAKE
Tech. Officer: ARC/C H SCHULBACH, ARC/W J FEIEREISEN
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1143 OREGON STATE UNIVERSITY 7860
 NETWORK FOR EDUCATION & RESEARCH IN OREGON (NERO)
 07/17/1997 - 06/30/1999 FY99: \$0 Total: \$450,000
Prin. Invest.: R D DRYDEN, E T REYNALDES
Tech. Officer: ARC/M J LEON
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1287 OREGON STATE UNIVERSITY 7861
 TRAINING PILOTS TO PRIORITIZE TASKS
 02/01/1999 - 11/14/1999 FY99: \$84,687 Total: \$84,687
Prin. Invest.: K H FUNK
Tech. Officer: ARC/R K DISMUKES
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1341 OREGON STATE UNIVERSITY 7862
 INTERACTIONS BETWEEN GRAVITY & LIGHT IN DETERMINING PLANTFORM ANALYSIS USING THE LAXY-2 MUTANT TOMA
 07/21/1999 - 12/31/1999 FY99: \$82,205 Total: \$82,205
Prin. Invest.: T L LOMAX
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 2300 OREGON STATE UNIVERSITY 7863
 FLUXES OVER INHOMOGENEOUS SURFACES IN BOREAS
 06/30/1993 - 07/14/1998 FY99: \$0 Total: \$280,000
Prin. Invest.: L MAHRT
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2301 OREGON STATE UNIVERSITY 7864
 FROM MICROSCALE TO MESOSCALE: SNOWMELT, SOIL MOISTURE, AND EVAPOTRANSPIRATION FROM DISTRIBUTED
 06/30/1993 - 10/14/1998 FY99: \$0 Total: \$198,735
Prin. Invest.: D MARKS
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2377 OREGON STATE UNIVERSITY 7865
 COUPLED ATMOSPHERIC-FOREST CANOPY-SOIL PROFILE MONITORING AND SIMULATION
 09/30/1993 - 09/30/1998 FY99: -\$305 Total: \$369,744
Prin. Invest.: R H CUENCA
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3963 OREGON STATE UNIVERSITY 7866
 SUMMER SCHOOL IN DATA ASSIMILATION AND INVERSE MET
 02/18/1997 - 01/31/1998 FY99: -\$776 Total: \$33,224
Prin. Invest.: D F BENNET
Tech. Officer: GSFC/B DOUGLAS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4069 OREGON STATE UNIVERSITY 7867
 SAR-BASED STRUCTURAL MAPPING OF THE TRANSANTARCTIC
 04/12/1997 - 02/29/2000 FY99: \$0 Total: \$96,241
Prin. Invest.: D LEVY
Tech. Officer: GSFC/S H GOGINENI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4433 OREGON STATE UNIVERSITY 7868
 EVALUATING ECOSYSTEM MODEL PREDICTIONS OF CO₂ & WA ACROSS THE OREGON TRANSECT WITH FLUX MEASUREMENTS
 04/23/1997 - 03/31/1998 FY99: -\$2 Total: \$198,084
Prin. Invest.: D H UNSWORTH
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4542 OREGON STATE UNIVERSITY 7869
 40 AR/39 AR INCREMENTAL HEATING AGES OF SUBMILLIGR IMPACT MELT ROCKS USING A CONTINUOUS LASER SYSTEM
 05/06/1997 - 05/31/2000 FY99: \$21,544 Total: \$74,437
Prin. Invest.: D DALRYMPLE
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4816 OREGON STATE UNIVERSITY 7870
 TITLE: LOCAL VALIDATION OF GLOBAL ESTIMATE OF BIO SYNTHESIS AND SCALING METHODS ACROSS SEVERAL MAJO
 06/26/1997 - 09/30/1998 FY99: -\$272 Total: \$159,930
Prin. Invest.: D COHEN
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4947 OREGON STATE UNIVERSITY 7871
 "COUPLED ATMOSPHERE/OCEAN PROCESSES & PRIMARY PROD IN THE SOUTHERN OCEAN"
 06/23/1997 - 06/30/2000 FY99: \$413,000 Total: \$2,063,000
Prin. Invest.: M R ABBOTT
Tech. Officer: GSFC/J A YODER
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4960 OREGON STATE UNIVERSITY 7872
 A HIGH-RESOLUTION SURVEY OF THE DISK OF M31
 06/27/1997 - 06/30/1998 FY99: -\$44 Total: \$1,381
Prin. Invest.: F A PRIMINI
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6156 OREGON STATE UNIVERSITY 7873
 EFFECT OF OCEAN TIDES ON THE LONG TERM ORBITAL AND OF THE EARTH-MOON SYSTEM
 09/11/1997 - 09/14/2000 FY99: \$20,000 Total: \$60,000
Prin. Invest.: G D EGBERT
Tech. Officer: GSFC/B BILLS
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6189 OREGON STATE UNIVERSITY 7874
 WAVES AND INSTABILITY IN THE ATMOSPHERE OF MARS
 02/04/1998 - 06/30/2000 FY99: \$142,299 Total: \$250,105
Prin. Invest.: D BARNES
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6242 OREGON STATE UNIVERSITY 7875
 MODELING CARBON DYNAMICS AND THEIR ECONOMIC IMPLIC REGIONS: PACIFIC NORTHWESTERN USA AND NORTHWESTER
 08/19/1997 - 02/28/2000 FY99: \$0 Total: \$511,250
Prin. Invest.: D E HARMON
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6354 OREGON STATE UNIVERSITY 7876
 OBSERVATIONS AND MODELING OF THE TRANSIENT GENERAL PACIFIC OCEAN
 09/26/1997 - 08/31/2000 FY99: \$0 Total: \$238,473
Prin. Invest.: D B CHELTON
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6373 OREGON STATE UNIVERSITY 7877
 GRAVITROPIC SIGNAL TRANSDUCTION IN THE LAZY-2 TOMATO MUTANT
 10/03/1997 - 06/30/2000 FY99: \$40,000 Total: \$236,085
Prin. Invest.: D LOMAX
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6477 OREGON STATE UNIVERSITY 7878
 EARTH SCIENCE DATA VISUALIZATION & SATELLITE DATA ACQUISITION LABORATORY
 11/18/1997 - 06/30/1999 FY99: \$0 Total: \$500,000
Prin. Invest.: D PISIAS
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6530 OREGON STATE UNIVERSITY 7879
 THE IMPROVED ALGORITHM FOR ESTIMATING THE ATMOSPHE RIC EFFECT IN SPACE MEASUREMENTS OF THE MARINE
 12/09/1997 - 10/31/1999 FY99: \$127,960 Total: \$255,920
Prin. Invest.: K SHIFRIN
Prin. Invest.: NONE
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6642 OREGON STATE UNIVERSITY 7880
 COMPREHENSIVE VALIDATION OF SATELLITE OCEAN WINDS: ADVANCED TECHNIQUES AND MULTI-INSTRUMENT ANALYS
 11/20/1997 - 10/31/2000 FY99: \$0 Total: \$390,985
Prin. Invest.: D FREILICH
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6647 OREGON STATE UNIVERSITY 7881
 RELATIONSHIPS BETWEEN THE INHERENT OPTICAL PROPERT IES (IOP), BIOGEOCHEMICAL PARAMETERS A
 12/04/1997 - 11/30/1999 FY99: \$90,692 Total: \$180,668
Prin. Invest.: J R ZANEVELD
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7416 OREGON STATE UNIVERSITY 7882
 SPATIALLY-AVERAGED FLUXES OF CO2, HEAT AND MOISTUR E
 05/21/1998 - 12/31/2000 FY99: \$42,203 Total: \$105,765
Prin. Invest.: L MAHRT
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7506 OREGON STATE UNIVERSITY 7883
 ASSESSING POTENTIAL AND ACTUAL FOREST PRODUCTIVITY ACROSS SOUTHWESTERN OREGON WITH TWO SIMULATION
 06/26/1998 - 06/30/2001 FY99: \$69,331 Total: \$158,030
Prin. Invest.: R H WARING
Prin. Invest.: NONE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7531 OREGON STATE UNIVERSITY 7884
 EVALUATING MODEL PREDICTIONS OF CO2 AND WATER VAPO R EXCHANGE WITHFLUX MEASUREMENTSIN A POND
 06/11/1998 - 06/30/2001 FY99: \$155,707 Total: \$318,588
Prin. Invest.: M H UNSWORTH
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTALSCI, OTHER

NAG 5 7551 OREGON STATE UNIVERSITY 7885
 REDUCING UNCERTAINTY IN CARBON AND ENERGY EXCHANGE OVER PINE FORESTS: INFLUENCE OF AGE,MANAGEMEN
 06/22/1998 - 06/30/2001 FY99: \$130,868 Total: \$492,870
Prin. Invest.: B LAW
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7686 OREGON STATE UNIVERSITY 7886
 LIMITS TO CLOUD SUSCEPTIBILITY.
 09/15/1998 - 09/30/1999 FY99: \$0 Total: \$98,000
Prin. Invest.: J A COAKLEY, JR.
Tech. Officer: GSFC/M I MISHCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7694 **OREGON STATE UNIVERSITY** **7887**
 EXPERIMENTAL & THEORETICAL STUDIES OF ORGANIC SYNTHESIS AND
 ALTERATION AT HYDROTHERMAL CONDITIONS
 09/23/1998 - 08/31/1999 FY99: \$46,667 Total: \$80,000
Prin. Invest.: B T SIMONEIT
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 7856 **OREGON STATE UNIVERSITY** **7888**
 BIGFOOT—CHARACTERIZING LAND COVER, LAI, AND NPP AT THE LAND-
 SCALE SCALE FOR EOS/MODIS VALIDATION
 12/14/1998 - 11/30/1999 FY99: \$252,223 Total: \$252,223
Prin. Invest.: W B COHEN
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8160 **OREGON STATE UNIVERSITY** **7889**
 1999 SUMMER SCHOOL ON INVERSE METHODS & DATA ASSIMILATION
 02/05/1999 - 01/31/2000 FY99: \$15,000 Total: \$15,000
Prin. Invest.: A F BENNETT
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8182 **OREGON STATE UNIVERSITY** **7890**
 INVESTIGATION OF ATMOSPHERIC DIURNAL VARIATIONS IN SUMMER WITH
 A MARS MESOSCALE MODEL
 02/16/1999 - 03/31/2000 FY99: \$48,100 Total: \$48,100
Prin. Invest.: J R BARNES
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8261 **OREGON STATE UNIVERSITY** **7891**
 CONSTRUCTION TO COMPLETE THE ENVIRONMENTAL COMPUTING CEN-
 TER
 02/17/1999 - 01/31/2001 FY99: \$2,000,000 Total: \$2,000,000
Prin. Invest.: G DALRYMPLE
Tech. Officer: GSFC/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8315 **OREGON STATE UNIVERSITY** **7892**
 INTEGRATING MICROWAVE AND HYPERSPECTRAL REMOTE SENSING FOR
 ESTIMATING VEGETATION STRUCTURE AND BIOMASS
 03/24/1999 - 02/28/2000 FY99: \$37,062 Total: \$37,062
Prin. Invest.: B LAW
Tech. Officer: HQ/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8400 **OREGON STATE UNIVERSITY** **7893**
 USING DISTRIBUTED OBJECT-BASED FRAMEWORKS TO SUPPORT EOS
 DATA ACCESS AND VISUALIZATION
 05/20/1999 - 05/31/2000 FY99: \$62,000 Total: \$62,000
Prin. Invest.: M S ABBOTT
Tech. Officer: GSFC/K MOE
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 8431 **OREGON STATE UNIVERSITY** **7894**
 NUTRIENT ANALYSES FOR ROAVERS
 04/01/1999 - 06/30/1999 FY99: \$0 Total: \$0
Prin. Invest.: J C JENNINGS, JR.
Tech. Officer: GSFC/K ARRIGO
CASE Category: 33 - OCEANOGRAPHY

NAG 5 8520 **OREGON STATE UNIVERSITY** **7895**
 ANALYSIS OF RADARSAT'S C-BAND SYNTHETIC APERTURE RADAR (SAR)
 DATA FOR IDENTIFICATION OF PBL ROLL S
 06/24/1999 - 05/31/2000 FY99: \$98,554 Total: \$98,554
Prin. Invest.: G LEVY
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8601 **OREGON STATE UNIVERSITY** **7896**
 SPATIAL VARIATION OF SURFACE MOISTURE FLUXES IN SPG
 06/17/1999 - 06/14/2000 FY99: \$40,497 Total: \$40,497
Prin. Invest.: L MAHRT
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8732 **OREGON STATE UNIVERSITY** **7897**
 USE OF LIDAR SIGNALS TO STUDY BIOLOGICAL AND PHYSICAL OCEAN-
 OGRAPHIC FEATURES
 08/20/1999 - 08/14/2000 FY99: \$36,050 Total: \$36,050
Prin. Invest.: E BOSS
Tech. Officer: GSFC/C KOBLINSKY
CASE Category: 33 - OCEANOGRAPHY

NAS 1 19952 **OREGON STATE UNIVERSITY** **7898**
 SCIENCE SUPPORT TO THE LITE SCIENCE TEAM
 05/14/1993 - 11/30/1999 FY99: \$0 Total: \$223,000
Prin. Invest.: J A COAKLEY
Tech. Officer: LARC/G L MADDREA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 98140 **OREGON STATE UNIVERSITY** **7899**
 CHARACTERIZATION OF CLOUDS AND THE ANISOTROPY OF EMITTED AND
 REFLECTED RADIANCES
 10/29/1998 - 10/28/1999 FY99: \$171,683 Total: \$171,683
Prin. Invest.: J COAKLEY
Tech. Officer: LARC/B A WIELICKI, LARC/R L HUFFMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 99104 **OREGON STATE UNIVERSITY** **7900**
 DETERMINATION OF THE INDIRECT RADIATIVE FORCING DUE TO AERO-
 SOLS
 05/17/1999 - 05/16/2001 FY99: \$8,000 Total: \$8,000
Prin. Invest.: J M COAKLEY, JR.
Tech. Officer: LARC/G GIBSON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31360 **OREGON STATE UNIVERSITY** **7901**
 MODIS INVESTIGATION
 12/30/1991 - 12/14/2001 FY99: \$593,000 Total: \$3,544,000
Prin. Invest.: M R ABBOTT
Tech. Officer: GSFC/H OSEROFF
CASE Category: 33 - OCEANOGRAPHY

NAS 5 32965 **OREGON STATE UNIVERSITY** **7902**
 SEAWINDS PRINCIPAL INVESTIGATOR & SCIENCE TEAM ACTIVITIES
 09/15/1995 - 12/31/2004 FY99: \$677,000 Total: \$3,257,150
Prin. Invest.: D H FREILICH
Tech. Officer: GSFC/C RABER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 97129 **OREGON STATE UNIVERSITY** **7903**
 SIMBIOS DATA PRODUCT & ALGORITHM VALIDATION
 08/18/1997 – 08/17/2000 FY99: \$394,272 Total: \$863,764
Prin. Invest.: J R ZANEVELD
Tech. Officer: GSFC/C MCCLAIN
CASE Category: 33 – OCEANOGRAPHY

NCC 2 661 **OREGON STATE UNIVERSITY** **7904**
 NUMERICAL SIMULATIONS OF THE MARTIAN ATMOSPHERE
 03/15/1990 – 12/31/1998 FY99: \$3 Total: \$125,350
Prin. Invest.: J R BARNES
Tech. Officer: ARC/R M HABERLE, ARC/J B POLLACK
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 2 1102 **OREGON STATE UNIVERSITY** **7905**
 INVESTIGATION OF THE CIRCULATION OF THE MARTIAN ATMOSPHERE
 USING DYNAMICAL MODELS
 04/01/1999 – 12/31/1999 FY99: \$15,941 Total: \$15,941
Prin. Invest.: J R BARNES
Tech. Officer: ARC/R M HABERLE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 2 5222 **OREGON STATE UNIVERSITY** **7906**
 USE OF MAPLE SEEDING CONOPY REFLECTANCE DATASET FOR VALIDA-
 TION OF SART/LEAFMOD RADIATIVE TRANSFER
 06/20/1997 – 07/31/1999 FY99: \$0 Total: \$10,000
Prin. Invest.: B YODER
Tech. Officer: ARC/D PETERSON
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NCC13 98004 **OREGON STATE UNIVERSITY** **7907**
 AFFILIATED RESEARCH CENTER PROGRAM SAME
 08/04/1998 – 09/30/2001 FY99: \$150,000 Total: \$200,000
Prin. Invest.: D KIMERLING
Tech. Officer: SSC/H CARR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 2 52221 **OREGON STATE UNIVERSITY** **7908**
 BIOMASS & CARBON DYNAMICS ASSOCIATED WITH LAND USE IN THE
 BRAZILIAN AMAZON: SCALING OF GROUND-.....
 09/20/1996 – 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: J B KAUFFMAN
Tech. Officer: ARC/E P CONDON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 2 52245 **OREGON STATE UNIVERSITY** **7909**
 MESOSCALE MODEL OF THE MARTIAN ATMOSPHERE
 08/11/1998 – 08/14/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J R BARNES
Tech. Officer: ARC/R M HABERLE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 5 96 **OREGON STATE UNIVERSITY** **7910**
 GLOBAL CLIMATE CHANGE EFFECTS ON CARBON SEQUESTRATION
 MEDIATED BY SOIL MICROORGANISMS
 08/20/1999 – 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R P DICK, V GEWIN
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30064 **OREGON STATE UNIVERSITY** **7911**
 PHYSICAL-BIOLOGICAL INTERACTIONS IN THE SOUTHERN O
 09/10/1997 – 08/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: M ABBOTT
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30181 **OREGON STATE UNIVERSITY** **7912**
 FUNCTIONAL GROUPING OF PLANTS IN FLORIDA SCRUB HABITAT/STU-
 DENT: TAMMY FOSTER
 08/23/1999 – 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: B BOND
Tech. Officer: GSFC/M Y WEI
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30185 **OREGON STATE UNIVERSITY** **7913**
 RIGHT WHALE ECOLOGY IN THE NORTHWEST ATLANTIC OCEAN/STU-
 DENT—MARK BAUMGARTNER
 08/19/1999 – 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: B MATE
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30214 **OREGON STATE UNIVERSITY** **7914**
 COMBINING FIELD MEASUREMENTS AND SATELLITE IMAGERY WITH A
 PROBABILISTIC MODEL TO QUANTIFY UNCERTAIN
 08/24/1999 – 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: W B COHEN
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 40022 **OREGON STATE UNIVERSITY** **7915**
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 02/13/1997 – 02/28/2000 FY99: \$256,250 Total: \$694,500
Prin. Invest.: A C KLEIN
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50080 **OREGON STATE UNIVERSITY** **7916**
 EFFECTS OF RESISTANCE AND HIGH-IMPACT TRAINING ON STEM IN PRE-
 MENOPAUSAL WOMEN
 09/05/1997 – 08/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: C SNOW
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50092 **OREGON STATE UNIVERSITY** **7917**
 TYPE SIMILARITIES FOR ENABLING CODE REUSE IN VISUA
 09/05/1997 – 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: BURNETT
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 – AERONAUTICAL ENGR

NAG 8 1283 **PORTLAND STATE UNIVERSITY** **7918**
 JOVE RESEARCH
 01/21/1997 – 08/31/2000 FY99: \$0 Total: \$54,914
Prin. Invest.: A M FRASER
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 1 2010 UNIVERSITY OF OREGON - EUGENE 7919
 ATMOSPHERIC AND SPECTROSCOPIC RESEARCH IN THE FAR INFRARED
 02/23/1998 - 02/21/2000 FY99: \$40,000 Total: \$100,000
 Prin. Invest.: K PARK
 Tech. Officer: LARC/I G NOLT
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1173 UNIVERSITY OF OREGON - EUGENE 7920
 STUDIES OF BACTERIORHODOPSIN FOR OPTICAL DATA STORAGE
 01/26/1998 - 11/30/1999 FY99: \$50,000 Total: \$100,000
 Prin. Invest.: G W RAYFIELD
 Tech. Officer: ARC/J D DOWNIE
 CASE Category: 13 - PHYSICS

NAG 3 1934 UNIVERSITY OF OREGON - EUGENE 7921
 NUCLEATION OF QUANTIZED VORTICES FROM ROTATING SUPERFLUID DROPS
 08/05/1996 - 06/30/2000 FY99: \$59,000 Total: \$176,000
 Prin. Invest.: D J DONNELLY
 Tech. Officer: GRC/B S SINGH
 CASE Category: 13 - PHYSICS

NAG 5 3282 UNIVERSITY OF OREGON - EUGENE 7922
 QUASI-PERIODIC OSCILLATIONS AND THE TEMPORAL CHARACTERISTICS OF THE AM HERCULIS OBJECTS
 07/01/1996 - 01/31/1998 FY99: \$0 Total: \$25,700
 Prin. Invest.: J IMAMURA
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 6109 UNIVERSITY OF OREGON - EUGENE 7923
 THE FORMATION AND EVOLUTION OF LSB GALAXIES
 07/24/1997 - 10/31/1999 FY99: \$0 Total: \$89,766
 Prin. Invest.: D SCHOMBERT
 Tech. Officer: GSFC/H SMITH
 CASE Category: 11 - ASTRONOMY

NAG 5 6962 UNIVERSITY OF OREGON - EUGENE 7924
 FUNNELED ACCRETION FLOWS IN MAGNETIC CATAclysmic VARIABLES
 02/06/1998 - 01/31/1999 FY99: \$0 Total: \$22,303
 Prin. Invest.: J N IMAMURA
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 8505 UNIVERSITY OF OREGON - EUGENE 7925
 INSTABILITIES IN PROTOSTELLAR STAR/DISK SYSTEMS (A TP - 98)
 05/10/1999 - 04/30/2000 FY99: \$25,058 Total: \$25,058
 Prin. Invest.: J IMAMURA
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NCC 2 1089 UNIVERSITY OF OREGON - EUGENE 7926
 AFFECT & AERONAUTICAL DECISION-MAKING
 02/02/1999 - 01/14/2000 FY99: \$99,620 Total: \$99,620
 Prin. Invest.: R MAURO
 Tech. Officer: ARC/I BARSHI
 CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 5299 UNIVERSITY OF OREGON - EUGENE 7927
 THE EFFECT OF UV RADIATION ON THE ESTABLISHMENT & INTEGRITY OF MICROBIAL MATS
 10/26/1998 - 10/31/1999 FY99: \$25,000 Total: \$25,000
 Prin. Invest.: R W CASTEBOLZ
 Tech. Officer: ARC/B M BEBOUT, ARC/D J DES MARAIS
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5306 UNIVERSITY OF OREGON - EUGENE 7928
 CONSOLIDATED CULTURE COLLECTION OF MICROORGANISMS FOR EXTREME ENVIRONMENTS
 01/21/1999 - 12/31/1999 FY99: \$50,000 Total: \$50,000
 Prin. Invest.: R W CASTENHOLZ
 Tech. Officer: ARC/C P MCKAY
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 50105 UNIVERSITY OF OREGON - EUGENE 7929
 A REALISTIC MODEL OF CO AND POST-SEISMIC DEFORMATION RIDGE EARTHQUAKE AND ITS PREDECESSORS
 09/06/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
 Prin. Invest.: E HUMPHREYS
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50107 UNIVERSITY OF OREGON - EUGENE 7930
 POTENTIAL VEGETATION CHANGE IN NORTH AMERICA IN RELATION TO WARMING
 09/06/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: P BARTLEIN
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

PENNSYLVANIA

NAG 5 3617 ALLEGHENY COLLEGE 7931
 ASSESSING THE IMPACTS OF EL NINO CLIMATIC EVENTS ON PHILIPPINE ECONOMY
 02/21/1997 - 12/14/1999 FY99: \$40,075 Total: \$135,141
 Prin. Invest.: D BENDEL, NONE
 Tech. Officer: GSFC/A J TUYAHOV
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6564 ALLEGHENY COLLEGE 7932
 A WORKSHOP SERIES ON PROMOTING A SUSTAINABLE FOREST INDUSTRY IN NORTHWEST PENNSYLVANIA
 11/03/1997 - 08/31/1999 FY99: \$0 Total: \$49,960
 Prin. Invest.: T G BENDEL
 Tech. Officer: HQ/J DASCH
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4000 BLOOMSBURG UNIVERSITY 7933
 A STUDY OF THE VENUSIAN SURFACE UTILIZING A SELF-AIDED ROBOT
 03/17/1997 - 12/31/1998 FY99: -\$84 Total: \$51,525
 Prin. Invest.: D K SHEPARD
 Tech. Officer: GSFC/P ROGERS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7964 BLOOMSBURG UNIVERSITY 7934
 REMOTE SENSING OF FRACTAL PLANETARY SURFACES
 01/11/1999 - 01/14/2000 FY99: \$34,000 Total: \$34,000
 Prin. Invest.: M K SHEPARD
 Tech. Officer: GSFC/J GRANT
 CASE Category: 11 - ASTRONOMY

NAG 5 3669 **BUCKNELL UNIVERSITY** **7935**
 PLANETARY MINIATURE LIDAR FOR WATER VAPOUR AEROSOL PROFILES
 FROM MARS
 01/15/1997 - 12/31/1997 FY99: -\$1,453 Total: \$19,390
Prin. Invest.: S M LORD
Tech. Officer: GSFC/J RALL
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 8679 **BUCKNELL UNIVERSITY** **7936**
 INVESTIGATION OF AERODYNAMIC AND RADIOMETRIC LAND SURFACE
 TEMPERATURES
 07/27/1999 - 08/14/2000 FY99: \$40,050 Total: \$40,050
Prin. Invest.: R D CRAGO
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8699 **BUCKNELL UNIVERSITY** **7937**
 IMPROVED PREDICTION OF MOMENTUM AND SCALAR FLUXES USING
 MODIS IMAGERY
 08/17/1999 - 08/14/2000 FY99: \$18,170 Total: \$18,170
Prin. Invest.: R D CRAGO
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1666 **CARNEGIE - MELLON UNIVERSITY** **7938**
 PSEUDO-TIME ONE-SHOT METHODS FOR CONSTRAINED OPTIMIZATION
 PROBLEMS
 01/13/1995 - 01/12/1999 FY99: -\$1,236 Total: \$208,243
Prin. Invest.: S TA'ASAN
Tech. Officer: LARC/M D SALAS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1687 **CARNEGIE - MELLON UNIVERSITY** **7939**
 CANONICAL VARIABLES MULTIGRID METHOD FOR COMPRESSIBLE NAVI-
 ER-STOKES EQUATIONS
 01/20/1995 - 09/30/1998 FY99: -\$147 Total: \$140,228
Prin. Invest.: S TA'ASAN
Tech. Officer: LARC/W K ANDERSON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2090 **CARNEGIE - MELLON UNIVERSITY** **7940**
 NOVEL SCALABLE ALGORITHMS FOR AEROSPACE DESIGN OPTIMIZATION
 ON MASSIVELY PARALLEL COMPUTERS
 07/21/1998 - 08/31/2000 FY99: \$88,110 Total: \$108,110
Prin. Invest.: O GHATTAS
Tech. Officer: LARC/R T BIEDRON, GSFC/J SOBIESKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1137 **CARNEGIE - MELLON UNIVERSITY** **7941**
 POSITION ESTIMATION FROM NATURAL LANDMARKS
 07/11/1997 - 10/31/1998 FY99: \$0 Total: \$99,888
Prin. Invest.: M HERBERT
Tech. Officer: ARC/M H SIMS
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1230 **CARNEGIE - MELLON UNIVERSITY** **7942**
 APPLICATION SPECIFIC SUPER COMPUTING
 06/16/1998 - 11/30/1999 FY99: \$450,000 Total: \$749,288
Prin. Invest.: T C MOWRY, O C GHATTAS, D R O'HALLARON
Tech. Officer: ARC/C H SCHULBACH
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 2 1233 **CARNEGIE - MELLON UNIVERSITY** **7943**
 PRECISION POSITIONING FROM VISUAL TRACKING OF NATURAL FEAT-
 URES
 07/01/1998 - 05/31/2000 FY99: \$59,984 Total: \$99,984
Prin. Invest.: M HEBERT
Tech. Officer: ARC/J A SCHREINER
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1266 **CARNEGIE - MELLON UNIVERSITY** **7944**
 INTELLIGENT ROBOTICS: AUTONOMOUS NAVIGATION, HEALTH MAINTENANCE
 09/16/1998 - 12/31/1999 FY99: \$463,878 Total: \$649,878
Prin. Invest.: R S SIMMONS
Tech. Officer: ARC/M H SIMS, ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1276 **CARNEGIE - MELLON UNIVERSITY** **7945**
 UAV MODELING & CONTROL
 01/04/1999 - 01/31/2000 FY99: \$79,315 Total: \$79,315
Prin. Invest.: C E THORPE
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1288 **CARNEGIE - MELLON UNIVERSITY** **7946**
 AUTOMATED VERIFICATION OF DIAGNOSTIC MODELS
 02/02/1999 - 11/30/1999 FY99: \$24,808 Total: \$24,808
Prin. Invest.: R G SIMMONS
Tech. Officer: ARC/M R LOWRY
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1294 **CARNEGIE - MELLON UNIVERSITY** **7947**
 DECENTRALIZED ARCHITECTURE FOR MULTI-ROBOT COORDINATION
 02/19/1999 - 01/31/2000 FY99: \$299,294 Total: \$299,294
Prin. Invest.: R G SIMMONS
Tech. Officer: ARC/M H SIMS
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 1875 **CARNEGIE - MELLON UNIVERSITY** **7948**
 FLUID PHYSICS IN STOCHASTIC ACCELERATION ENVIRONMENT DIFFU-
 SION AND NON-SOINOIDAL FLOWS
 05/21/1996 - 05/20/1998 FY99: \$0 Total: \$205,000
Prin. Invest.: R F SEKERKA
Tech. Officer: GRC/A CHAIT
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2159 **CARNEGIE - MELLON UNIVERSITY** **7949**
 LATEAL MOTION OF PARTICLES AND BUBBLES CAUSED BY PHORETIC
 FLOWS NEAR A SOLID INTERFACE
 04/22/1998 - 12/31/2002 FY99: \$100,000 Total: \$180,000
Prin. Invest.: P J SIDES, Y E SOLOMENTSER, J L ANDERSON
Tech. Officer: GRC/R B ROGERS
CASE Category: 13 - PHYSICS

NAG 5 3651 **CARNEGIE - MELLON UNIVERSITY** **7950**
 MISSION SCIENTIST FOR ESA'S X-RAY MULTI-MIRROR MIS
 03/06/1997 - 02/29/2000 FY99: \$150,000 Total: \$410,000
Prin. Invest.: D GRIFFITHS
Tech. Officer: GSFC/D MACHI
CASE Category: 11 - ASTRONOMY

NAG 5 4635 **CARNEGIE - MELLON UNIVERSITY** **7951**
 LAST YEAR OF FUNDING FOR USERC TO DEVELOP & DEMONSTRATE TECHNOLOGIES ASSOCIATED WITH DEPLOYMENT OF ROBOT
 06/04/1997 - 08/31/1999 FY99: \$0 Total: \$529,969
Prin. Invest.: E KROTKOV
Tech. Officer: GSFC/R AVANT
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 4748 **CARNEGIE - MELLON UNIVERSITY** **7952**
 UNIVERSITY TO DEVELOP AND DEMONSTRATE NOVEL NEW TECH WITH DEPLOYMENT OF ROBOT ROVERS TO THE LUNAR SURF
 07/21/1997 - 12/31/1998 FY99: \$0 Total: \$1,298,322
Prin. Invest.: T EAGAN
Tech. Officer: GSFC/R AVANT
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6075 **CARNEGIE - MELLON UNIVERSITY** **7953**
 CLUES TO THE ORIGIN OF THE HARD XRB: DEEP SURVEYS
 07/28/1997 - 06/30/1998 FY99: \$0 Total: \$31,800
Prin. Invest.: R E GRIFFITHS
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6548 **CARNEGIE - MELLON UNIVERSITY** **7954**
 A NEW LOOK AT CLUSTER EVOLUTION (LTSA)
 10/29/1997 - 10/31/1999 FY99: \$46,500 Total: \$101,200
Prin. Invest.: R NICHOL
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7707 **CARNEGIE - MELLON UNIVERSITY** **7955**
 ANTARCTIC METEORITE SEARCH DEMONSTRATION
 09/17/1998 - 09/30/1998 FY99: \$0 Total: \$1,000,000
Prin. Invest.: W WHITTAKER
Tech. Officer: GSFC/D LAVERY
CASE Category: 11 - ASTRONOMY

NAG 5 7722 **CARNEGIE - MELLON UNIVERSITY** **7956**
 ANTARCTIC METEORITE SEARCH TECHNOLOGY
 09/21/1998 - 09/30/1998 FY99: \$0 Total: \$670,000
Prin. Invest.: W WHITTAKER
Tech. Officer: GSFC/D LAVERY
CASE Category: 11 - ASTRONOMY

NAG 5 7898 **CARNEGIE - MELLON UNIVERSITY** **7957**
 CLUES TO THE ORIGIN OF THE HARD X-RAY BACKGROUND: ASCA DEEP SURVEYS OF DEEP ROSAT FIELDS (ADP98)
 01/12/1999 - 12/31/1999 FY99: \$46,726 Total: \$46,726
Prin. Invest.: R E GRIFFITHS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7926 **CARNEGIE - MELLON UNIVERSITY** **7958**
 THE VIPER SUNYAIEV-ZELDOVICH SURVEY (LTSA 98)
 01/03/1999 - 12/31/1999 FY99: \$90,000 Total: \$90,000
Prin. Invest.: A K ROMER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8093 **CARNEGIE - MELLON UNIVERSITY** **7959**
 AN AUTOMATED SYSTEM FOR THE REDUCTION AND ANALYSIS OF X-RAY DATA FROM GALAXIES
 02/01/1999 - 01/31/2000 FY99: \$75,290 Total: \$75,290
Prin. Invest.: A F PTAK
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8744 **CARNEGIE - MELLON UNIVERSITY** **7960**
 CARBON NANOTUBES: NOVEL ANODE MATERIALS FOR SOLID STATE THIN FILM LITHIUM ION CELLS FOR MEMS APPLICATIONS
 08/23/1999 - 09/30/2000 FY99: \$25,000 Total: \$25,000
Prin. Invest.: P N KUMTA
Tech. Officer: GSFC/H C SHAW
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 9 1090 **CARNEGIE - MELLON UNIVERSITY** **7961**
 ANTARCTIC METEORITE SEARCH DEMONSTRATION
 02/26/1999 - 03/09/2000 FY99: \$1,000,000 Total: \$1,000,000
Prin. Invest.: T KANADE, W WHITTAKER
Tech. Officer: HQ/D LAVERY
CASE Category: 46 - MECHANICAL ENGR

NAG 9 1092 **CARNEGIE - MELLON UNIVERSITY** **7962**
 AUTONOMOUS ROVER TECHNOLOGY
 03/15/1999 - 03/15/2000 FY99: \$600,000 Total: \$600,000
Prin. Invest.: T KANADE
Tech. Officer: JSC/D LAVERY
CASE Category: 46 - MECHANICAL ENGR

NAG 9 1098 **CARNEGIE - MELLON UNIVERSITY** **7963**
 PARTICIPATION IN THE FIRST COMPETITION
 04/08/1999 - 04/19/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: W WHITTAKER
Tech. Officer: JSC/C J COLBERT, JSC/C PRICE
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 1141 **CARNEGIE - MELLON UNIVERSITY** **7964**
 ROBOTIC ASSEMBLY AND MAINTENANCE OF SOLAR FACILITIES
 08/26/1999 - 08/26/2000 FY99: \$449,977 Total: \$449,977
Prin. Invest.: W WHITTAKER
Tech. Officer: JSC/H ALDRIDGE
CASE Category: 46 - MECHANICAL ENGR

NAGW 1175 **CARNEGIE - MELLON UNIVERSITY** **7965**
 AUTONOMOUS PLANETARY ROVER
 10/19/1987 - 09/30/1997 FY99: \$0 Total: \$11,654,657
Prin. Invest.: T KANADE, T MITCHELL, W L WHITTAKER
Tech. Officer: HQ/D LAVERY, HQ/C B SOLLOWAY
CASE Category: 49 - ENGINEERING, OTHER

NAS 3 27735 **CARNEGIE - MELLON UNIVERSITY** **7966**
 COORDINATED APPROACH TO DEVELOPMENT & VALIDATION OF AERO-ELASTIC CODES
 05/30/1996 - 08/31/2000 FY99: \$224,000 Total: \$569,130
Prin. Invest.: J H GRIFFIN
Tech. Officer: GRC/R DEL ROSARIO, GRC/G L STEFKO
CASE Category: 46 - MECHANICAL ENGR

NCC 2 976 **CARNEGIE - MELLON UNIVERSITY** **7967**
 CONSTRAINT POSTING ALGORITHMS FOR SCHEDULING UNDER COMPLEX
 CONSTRAINTS
 12/19/1996 - 09/30/1998 FY99: \$0 Total: \$49,992
Prin. Invest.: S F SMITH, NONE
Tech. Officer: ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1026 **CARNEGIE - MELLON UNIVERSITY** **7968**
 AUTONOMOUS SCIENCE SOFTWARE
 03/06/1998 - 01/31/2000 FY99: \$214,472 Total: \$374,472
Prin. Invest.: C GLYMOUR
Tech. Officer: ARC/T L ROUGH
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5266 **CARNEGIE - MELLON UNIVERSITY** **7969**
 CLASSIFICATION OF SPECTROSCOPIC DATA FOR METEORITE DETECTION
 05/20/1998 - 09/14/1999 FY99: \$0 Total: \$11,825
Prin. Invest.: M HERBERT
Tech. Officer: ARC/T L ROUSH
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5319 **CARNEGIE - MELLON UNIVERSITY** **7970**
 ROBOTIC ROCK CLASSIFICATION
 04/21/1999 - 08/14/1999 FY99: \$13,772 Total: \$13,772
Prin. Invest.: M HERBERT
Tech. Officer: ARC/T L ROUSH
CASE Category: 22 - COMPUTER SCIENCE

NCC 3 465 **CARNEGIE - MELLON UNIVERSITY** **7971**
 MICROSCALE HYDRODYNAMICS NEAR MOVING CONTRACT LINE S
 04/18/1996 - 04/17/2000 FY99: \$184,984 Total: \$525,984
Prin. Invest.: S GAROFF, M WEISLOGEL
Tech. Officer: GRC/R SKARDA
CASE Category: 13 - PHYSICS

NCC 5 223 **CARNEGIE - MELLON UNIVERSITY** **7972**
 NATIONAL ROBOTICS ENGINEERING CONSORTIUM
 08/26/1997 - 07/31/2000 FY99: \$5,528,000 Total: \$8,223,000
Prin. Invest.: T KANADE
Tech. Officer: GSFC/D LAVERY
CASE Category: 11 - ASTRONOMY

NCC 5 431 **CARNEGIE - MELLON UNIVERSITY** **7973**
 EVENTSCOPE: A 3D, NETWORKED ROBOTIC LEARNING ENVIRONMENT. IN
 RESPONSE TO NASA COOPERATIVE AGREEMENT
 09/20/1999 - 09/30/2000 FY99: \$70,000 Total: \$70,000
Prin. Invest.: B ROGERS
Tech. Officer: GSFC/N LAL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 7 7 **CARNEGIE - MELLON UNIVERSITY** **7974**
 FRACTAL BRANCHING ULTRA-DEXTEROUS ROBOTS
 11/13/1996 - 11/13/1998 FY99: \$0 Total: \$223,904
Prin. Invest.: H MORAVEC
Tech. Officer: JPL/N MARSWELL
CASE Category: 46 - MECHANICAL ENGR

NGT 2 52232 **CARNEGIE - MELLON UNIVERSITY** **7975**
 LANDMARK BASED NAVIGATION FOR A PLANETARY ROVER
 08/26/1997 - 12/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: M HERBERT
Tech. Officer: ARC/M H SIMS
CASE Category: 46 - MECHANICAL ENGR

NGT 3 52326 **CARNEGIE - MELLON UNIVERSITY** **7976**
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT
 RESEARCHERS PROGRAM
 06/13/1997 - 08/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: P N RUMTA
Tech. Officer: GRC/F MONTEGANI
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 50054 **CARNEGIE - MELLON UNIVERSITY** **7977**
 INVESTIGATING THE MECH. OF AGGREGATION OF COLLOIDAL COTROPHO-
 RETIC DEPOSITION
 08/05/1997 - 06/30/2000 FY99: \$44,000 Total: \$66,000
Prin. Invest.: J ANDERSON
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50060 **CARNEGIE - MELLON UNIVERSITY** **7978**
 REINFORCEMENT LEARNING FOR SPACECRAFT CONFIGURATION
 08/11/1997 - 06/30/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: A W MOORE/BOYAN
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50076 **CARNEGIE - MELLON UNIVERSITY** **7979**
 MULTIAGENT LEARNING FOR AUTONOMOUS SPACECRAFT CON-
 TROLL
 08/26/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: M VELOSO
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50248 **CARNEGIE - MELLON UNIVERSITY** **7980**
 TASK EVALUATION FOR ROBOTIC EXPLORERS STUDENT: KIMBERLY SHILL-
 CUTT
 06/04/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: W WHITTAKER
Tech. Officer: GSFC/L SMITH
CASE Category: 11 - ASTRONOMY

NAG 8 1312 **CLARION UNIVERSITY OF PENNSYLVANIA** **7981**
 JOVE RESEARCH
 01/22/1997 - 08/31/1999 FY99: \$0 Total: \$86,000
Prin. Invest.: A J VEGA, P T RYBERG
Tech. Officer: MSFC/J FLOWDY, MSFC/J R PRUITT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1770 **DREXEL UNIVERSITY** **7982**
 A STUDY OF DMS AND SO2 ON PEM-TROPICS MY 1/2
 09/29/1995 - 05/30/1999 FY99: \$0 Total: \$832,716
Prin. Invest.: D R BANDY
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1421 DREXEL UNIVERSITY 7983
 FUEL-AIR MIXING IN LEAN BURN DIRECT INJECTION COMBUSTION
 12/17/1992 - 07/31/1998 FY99: \$0 Total: \$268,821
Prin. Invest.: K J CHOI
Tech. Officer: GRC/R R TACINA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1715 DREXEL UNIVERSITY 7984
 IN VIVO EVALUATION OF A NOVEL AND IMPROVED INSTRUMENT FOR
 OBJECTIVE EVALUATION OF OPHTHALMIC LENS OP
 03/01/1995 - 04/06/2000 FY99: \$50,000 Total: \$120,947
Prin. Invest.: S DUBIN VMD
Tech. Officer: GRC/J S LING, GRC/B S SINGH
CASE Category: 56 - MEDICL

NAG 3 1884 DREXEL UNIVERSITY 7985
 COMBUSTION OF UNCONFINED DROPLET CLUSTERS IN MICRO GRAVITY
 06/01/1996 - 05/31/2000 FY99: \$75,000 Total: \$270,452
Prin. Invest.: D A RUFF
Tech. Officer: GRC/D D ROSS, GRC/M A SACKSTEDTER
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2171 DREXEL UNIVERSITY 7986
 DEVELOPMENT OF METHODS TO QUANTIFY ICE ACCRETION CHARACTERISTICS
 06/04/1998 - 01/31/1999 FY99: \$0 Total: \$89,114
Prin. Invest.: C A RUFF
Tech. Officer: GRC/M G POTAPCZUK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2212 DREXEL UNIVERSITY 7987
 DEVELOPMENT OF LEAN DIRECT WALL INJECTION (LDWI) COMBUSTOR
 12/03/1998 - 11/30/1999 FY99: \$64,790 Total: \$64,790
Prin. Invest.: K J CHOI
Tech. Officer: GRC/R R TACINA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2291 DREXEL UNIVERSITY 7988
 ENZYMATIC CATARACTOLYSIS MONITORING USING A DYNAMIC LIGHT
 SCATTERING PROBE
 09/09/1999 - 07/19/2000 FY99: \$21,235 Total: \$21,235
Prin. Invest.: M A DELLAVECCHIA
Tech. Officer: GRC/B S SINGH
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2295 DREXEL UNIVERSITY 7989
 DEVELOPMENT AND VERIFICATION OF AN IMPROVED MODEL OF THE ICE
 ACCRETION PROCESS
 09/29/1999 - 02/09/2001 FY99: \$18,498 Total: \$18,498
Prin. Invest.: D A RUFF, NONE
Tech. Officer: GRC/M G POTAPCZUK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 6029 DREXEL UNIVERSITY 7990
 WORK IN SUPPORT OF THE NASA ESS HPCC PROGRAM
 10/06/1997 - 09/30/2000 FY99: \$122,382 Total: \$462,270
Prin. Invest.: B FRYXELL
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 5 6964 DREXEL UNIVERSITY 7991
 STELLAR AND BINARY EVOLUTION IN GLOBULAR CLUSTERS - ATP
 02/10/1998 - 02/14/2001 FY99: \$119,400 Total: \$234,956
Prin. Invest.: S L MCMILLAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NCC 1 224 DREXEL UNIVERSITY 7992
 ROBUST CONTROL OF NONLINEAR AND PARAMETER DEPENDENT SYSTEMS
 04/03/1996 - 11/15/1998 FY99: \$1 Total: \$152,001
Prin. Invest.: B C CHANG, H G KWATNY
Tech. Officer: LARC/C M BELCASTRO
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 278 DREXEL UNIVERSITY 7993
 EFFECTS OF ELECTROMAGNETIC-INDUCED FAILURE MODES: MODELING
 AND ANALYSIS 1/3
 02/25/1998 - 12/31/1999 FY99: \$65,600 Total: \$121,100
Prin. Invest.: A C LAU, B C CHANG
Tech. Officer: LARC/C M BELCASTRO
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 297 DREXEL UNIVERSITY 7994
 A STUDY OF THE CHEMISTRY OF SULFUR IN THE INTER-TROPICAL AND
 SOUTH PACIFIC CONVERGENCE ZONES
 04/28/1998 - 04/29/2000 FY99: \$208,742 Total: \$446,742
Prin. Invest.: A R BANDY, D C THORNTON
Tech. Officer: LARC/J L ROPER, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3365 FRANKLIN-MARSHALL COLLEGE 7995
 ISO GUEST OBSERVER PROJECTS: "A" STARS IN YOUNG OPEN CLUSTERS
 AND DUST AROUND SOLAR-TYPE STARS...
 08/15/1996 - 08/14/1999 FY99: \$0 Total: \$25,000
Prin. Invest.: D E BACKMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6858 FRANKLIN-MARSHALL COLLEGE 7996
 STATISTICAL ALGORITHMS FOR THE ANALYSIS OF SPACE-BASED DATA-
 SETS
 02/09/1998 - 02/14/2000 FY99: \$32,000 Total: \$63,912
Prin. Invest.: D E BACKMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NCC 2 5263 FRANKLIN-MARSHALL COLLEGE 7997
 NEARBY STARS (NSTARS) DATABASE
 04/09/1998 - 12/31/1999 FY99: \$79,200 Total: \$127,600
Prin. Invest.: D E BACKMAN
Tech. Officer: ARC/L J CAROFF
CASE Category: 11 - ASTRONOMY

NAG 5 4854 LAFAYETTE COLLEGE 7998
 DENSITIES AND PHASE EQUILIBRIA TO 1.0 GPa AND 120K AND THEIR ROLE
 IN THE LOW TEMPERATURE IGNEOUS
 06/26/1997 - 04/30/1998 FY99: -\$5,249 Total: \$28,051
Prin. Invest.: D HOGENBOOM
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7620 **LAFAYETTE COLLEGE** **7999**
 EXPERIMENTAL DENSITIES AND PHASE EQUILIBRIA TO 400 MPA OF
 HYDRATED SALT SOLUTIONS AND NA-COMPOUNDS
 07/24/1998 - 01/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: D L HOGENBOOM
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 1 1885 **LEHIGH UNIVERSITY** **8000**
 VORTEX-BODY INTERACTIONS: A CRITICAL ASSESMENT
 12/16/1996 - 12/31/1999 FY99: \$15,000 Total: \$45,001
Prin. Invest.: D O ROCKWELL
Tech. Officer: LARC/B S LAZOS, LARC/M J WALSH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1578 **LEHIGH UNIVERSITY** **8001**
 HYPERSONIC THREE - DIMENSIONAL BOUNDARY LAYER SEPA RATION
 03/08/1994 - 04/22/1998 FY99: -\$1 Total: \$190,378
Prin. Invest.: J D WALKER
Tech. Officer: GRC/L A POVINELLI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 4492 **LINCOLN UNIVERSITY - PA.** **8002**
 PACE AWARD—PRECOLLEGE AWARDS FOR EXCELLENCE IN MA ENGI-
 NEERING AND TECHNOLOGY PROGRAM
 05/15/1997 - 09/30/1998 FY99: -\$100,000 Total: \$100,000
Prin. Invest.: R LANGLEY
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 47 **LINCOLN UNIVERSITY - PA.** **8003**
 EXPLORING THE CHALLENGE OF INTEGRATING TECHNOLOGY AND
 EDUCATION
 08/16/1995 - 06/30/1999 FY99: \$0 Total: \$269,494
Prin. Invest.: D ROYER
Tech. Officer: SSC/A JOYCE
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 5 59 **LINCOLN UNIVERSITY - PA.** **8004**
 TO HELP STUDENTS EASE THE TRANSITION FROM HIGH SCH
 09/15/1997 - 04/30/1999 FY99: \$0 Total: \$180,000
Prin. Invest.: D LANGLEY
Tech. Officer: GSFC/D MENCHAN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 5 3368 **PENN. ST. U. @ ERIE-BEHREND COLLEGE** **8005**
 ISO SOLAR SYSTEM MISSION-TEAM MEMBER SUPPORT
 08/28/1996 - 09/30/2000 FY99: \$0 Total: \$60,000
Prin. Invest.: R F KNACKE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 9 1034 **PENNSYLVANIA STATE UNIV -HERSHEY MED.** **8006**
 EFFECT OF HEAD MOVEMENTS ON SYMPATHETIC NERVE ACTI VITY IN
 HUMANS: ROLE OF THE VESTIBULAR SYSTEM
 07/20/1998 - 07/19/2000 FY99: \$112,000 Total: \$148,000
Prin. Invest.: C A RAY
Tech. Officer: JSC/C W LLOYD
CASE Category: 56 - MEDICL

NAG 9 1044 **PENNSYLVANIA STATE UNIV -HERSHEY MED.** **8007**
 NEUROVASCULAR RESPONSE TO BED REST
 07/15/1998 - 07/14/2000 FY99: \$171,000 Total: \$228,000
Prin. Invest.: L I SINOWAY
Tech. Officer: JSC/C F SAWIN
CASE Category: 56 - MEDICL

NGT 5 50264 **PENNSYLVANIA STATE UNIV -HERSHEY MED.** **8008**
 TRANSGENIC ZEBRAFISH AS AN INDICATOR OF MUTAGENIC RISK
 07/07/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: C CHENGE
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 999 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8009**
 STUDIES OF RADIATION AND MICROPHYSICS IN CIRRUS AND MARINE
 STRATOCUMULUS
 05/25/1989 - 09/30/1998 FY99: -\$8,318 Total: \$584,317
Prin. Invest.: T P ACKERMAN
Tech. Officer: LARC/T OWENS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1367 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8010**
 COMPUTATIONAL AEROACOUSTICS USING NONLINEAR CFD TECHNIQUES
 ON PARALLEL COMPUTERS
 01/15/1992 - 06/30/1998 FY99: -\$1 Total: \$320,000
Prin. Invest.: L N LONG
Tech. Officer: LARC/J W POSEY, LARC/W R WATSON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1833 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8011**
 THE DIRECT NUMERICAL SIMULATION OF PERFORATED PLATES LINERS
 04/29/1996 - 04/28/1999 FY99: \$29,001 Total: \$150,001
Prin. Invest.: L N LONG
Tech. Officer: LARC/M B TRACY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1924 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8012**
 NUMERICAL SIMULATION OF THE EFFECTS OF FUSELAGE SCATTERING ON
 THE NOISE RADIATED BY ROTORCRAFT
 05/13/1997 - 05/12/2000 FY99: \$36,802 Total: \$111,537
Prin. Invest.: P J MORRIS
Tech. Officer: LARC/K S BRENTNER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2050 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8013**
 ROTOR LEAD-LAG CONTROL FOR HELICOPTER VIBRATION & NOISE
 REDUCTION
 03/31/1998 - 12/31/1999 FY99: \$50,000 Total: \$100,000
Prin. Invest.: F S GHANDI
Tech. Officer: LARC/M W NIXON, LARC/M L WILBUR
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2064 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8014**
 STUDIES OF RADIATION AND MICROPHYSICS IN CIRRUS AND MARINE
 STRATOCUMULUS CLOUDS
 05/19/1998 - 02/28/1999 FY99: \$1 Total: \$45,001
Prin. Invest.: T P ACKERMAN
Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2074 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8015
 LIDAR ATMOSPHERIC MEASUREMENTS
 05/19/1998 - 06/30/1998 FY99: -\$1 Total: \$9,524
Prin. Invest.: C R PHILBRICK
Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2093 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8016
 ROBUST PARALLEL COMPUTATIONAL METHODS FOR UNSTEADY FLUID DYNAMICS
 07/27/1998 - 06/30/1999 FY99: \$60,051 Total: \$90,051
Prin. Invest.: L N LONG
Tech. Officer: LARC/F FARASSAT, LARC/J W POSEY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2095 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8017
 BIOCYBERNETIC SYSTEMS IN RELATION TO ATTENTIONAL FOCI: CONTROL OF HAZARDOUS AWARENESS
 07/29/1998 - 11/30/1999 FY99: \$45,000 Total: \$60,000
Prin. Invest.: W J RAY
Tech. Officer: LARC/A T POPE
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 1 2147 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8018
 NUMERICAL SIMULATIONS FOR LANDING GEAR NOISE GENERATION AND RADIATION (REF:NRA 98-LARC-5)
 02/05/1999 - 12/31/2001 FY99: \$140,963 Total: \$140,963
Prin. Invest.: P J MORRIS, L N LONG
Tech. Officer: LARC/R R ANTOLIFF
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2208 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8019
 SIMULATION OF THE NOISE RADIATED BY RECTANGULAR JETS
 06/24/1999 - 05/31/2001 FY99: \$25,000 Total: \$25,000
Prin. Invest.: P J MORRIS, L N LONG, NONE
Tech. Officer: LARC/R A GOLUB, LARC/D P GARBER
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 826 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8020
 PARTICIPATION AS MISSION SCIENTIST FOR THE SPADEII MISSION
 02/22/1993 - 01/31/1999 FY99: \$0 Total: \$823,395
Prin. Invest.: W BRUNE
Tech. Officer: ARC/E CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1117 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8021
 HOX MEASUREMENTS IN SONEW WITH THE AIRBORNE TROPOSPHERIC OXIDES SENSOR (ATHOS)
 02/25/1997 - 12/31/1999 FY99: \$0 Total: \$634,986
Prin. Invest.: W H BRUNE
Tech. Officer: ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1152 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8022
 PERFORMANCE CHARACTERIZATION OF OBSTACLE DETECTION ALGORITHMS FOR AIRCRAFT NAVIGATION
 08/14/1997 - 09/30/1999 FY99: \$139,034 Total: \$482,414
Prin. Invest.: R KASTRUI, O I CAMPS
Tech. Officer: ARC/L S TONE, ARC/B T SWEET
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1182 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8023
 CONDITION - BASED MONITORING OF LARGE - SCALE FACILITIES
 02/26/1998 - 12/31/1998 FY99: \$0 Total: \$350,000
Prin. Invest.: D L HALL
Tech. Officer: ARC/A PATTERSON-HINE
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1236 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8024
 SCALABLE NUMERICAL ALGORITHMS ON NONHETEROGENEOUS COMPUTING ENVIRONMENTS WITH DYNAMIC ADAPTIVE ROUTING
 07/13/1998 - 10/31/1999 FY99: \$20,000 Total: \$80,000
Prin. Invest.: J XU
Tech. Officer: ARC/T J BARTH
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1295 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8025
 WEATHER FORECASTING SUPPORT FOR SOLVE
 03/03/1999 - 01/31/2000 FY99: \$14,644 Total: \$14,644
Prin. Invest.: G S FORBES
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1302 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8026
 PARTICIPATION AS MISSION SCIENTIST IN OBSERVATIONS FROM THE MIDDLE STRATOSPHERE DURING SOLVE
 03/05/1999 - 02/29/2000 FY99: \$65,000 Total: \$65,000
Prin. Invest.: W H BRUNE
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1309 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8027
 MEASUREMENTS OF CIO, BRO & HOX DURING SOLVE
 03/15/1999 - 03/31/2000 FY99: \$77,854 Total: \$77,854
Prin. Invest.: W H BRUNE
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1312 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8028
 CONDITION-BASED MAINTENANCE III FOR NASA-AMES RESEARCH CENTER
 03/19/1999 - 12/31/1999 FY99: \$162,200 Total: \$162,200
Prin. Invest.: D C LANG
Tech. Officer: ARC/A PATTERSON-HINE, ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1342 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8029
 MOLECULAR CONTROL OF CELL GROWTH DURING GRAVITY RESPONSES OF MAIZE SEEDINGS
 07/20/1999 - 01/14/2000 FY99: \$56,894 Total: \$56,894
Prin. Invest.: D J COSGROVE
Tech. Officer: ARC/M M AVERNER, ARC/D D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1366 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8030
 GRAVITROPISM IN CHARA RHIZOIDS
 07/30/1999 - 03/14/2000 FY99: \$71,080 Total: \$71,080
Prin. Invest.: S G GILROY
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 6026 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8031
 PUTTING DOWN ROOTS
 11/13/1998 - 11/30/1999 FY99: \$15,000 Total: \$15,000
Prin. Invest.: S M ASSMANN
Tech. Officer: ARC/R D MACELROY, ARC/M M AVERNER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1736 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8032
 THREE-DIMENSIONAL FLOW FIELD IN A TURBINE NOZZLE AND ROTOR
 BLADE FLOWS
 04/17/1995 - 10/20/1998 FY99: \$0 Total: \$137,490
Prin. Invest.: B LAKSHMINARAYANA
Tech. Officer: GRC/R BOYLE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1871 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8033
 MICROGRAVITY EFFECTS ON TRANSENDOTHELIAL TRANSPORT
 05/22/1996 - 05/21/2000 FY99: \$115,000 Total: \$396,000
Prin. Invest.: J M TAZBELL
Tech. Officer: GRC/J S LING, GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1995 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8034
 AERO-THERMO-STRUCTURAL OPTIMIZATION OF COOLED TURBINE
 BLADES
 12/02/1996 - 11/26/1999 FY99: \$93,093 Total: \$294,320
Prin. Invest.: G S DULIKRAVICH
Tech. Officer: GRC/H J GLADDEN, GRC/C LAWRENCE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2025 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8035
 COMPUTATION OF VISCOUS TRANSITIONAL FLOWS IN LOW PRESSURE
 TURBINES
 03/13/1997 - 04/23/1999 FY99: \$0 Total: \$72,751
Prin. Invest.: B LAKSHMINARAYANA
Tech. Officer: GRC/D E ASHPIS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2104 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8036
 THE GRAVITATIONAL ROLE IN LIQUID PHASE SINTERING THE GRAVITA-
 TIONAL ROLE IN LIQUID PHASE SINTERING
 01/07/1998 - 10/31/1998 FY99: \$0 Total: \$180,000
Prin. Invest.: R M GERMAN
Tech. Officer: GRC/T K GLASGOW
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2146 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8037
 DAMAGE MITIGATING CONTROL OF AEROSPACE PROPULSION SYSTEMS
 03/31/1998 - 08/31/1999 FY99: \$0 Total: \$18,997
Prin. Invest.: A RAY
Tech. Officer: GRC/C F LORENZO
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2151 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8038
 MODELING OF COMBUSTION RESPONSE OF GAS TURBINE SPRAY SWIRL-
 STABILIZED INJECTORS TO ACOUSTIC OSCILLATIONS
 04/07/1998 - 01/31/2001 FY99: \$15,000 Total: \$55,000
Prin. Invest.: V G YANG
Tech. Officer: GRC/K L BREISACHER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 113 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8039
 1997 TEACHER TUTORIALS: TEACHER TRAINING & TOOLS FOR WEB-
 BASED SCIENCE, MATH & TECHNOLOGY ETC
 01/21/1997 - 01/21/2000 FY99: \$53,940 Total: \$181,963
Prin. Invest.: B GRABOWSKI
Tech. Officer: DFRCE L DUKE
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 4 160 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8040
 LEARNING USING ERAST AIRCRAFT/LUAV
 02/08/1999 - 02/08/2001 FY99: \$115,165 Total: \$115,165
Prin. Invest.: R DEVON, J A GOODE
Tech. Officer: DFRCE/M MC CARTHY, DFRCE L DUKE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 1698 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8041
 CNO PROCESSING IN MASSIVE ALGOL BINARIES
 07/15/1991 - 07/14/1998 FY99: \$0 Total: \$40,674
Prin. Invest.: R A WADE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2857 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8042
 PHYSICS AND COSMOLOGY OF HIGH-ENERGY SOURCES
 01/23/1995 - 09/30/2000 FY99: \$0 Total: \$285,000
Prin. Invest.: P MESZAROS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2927 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8043
 EVALUATION AND UNDERSTANDING PARAMETERIZED CONVECTIVE PRO-
 CESSES AND THEIR ROLE IN THE ECT...
 04/05/1995 - 06/30/1999 FY99: \$0 Total: \$94,910
Prin. Invest.: M FRITSCH
Tech. Officer: GSFC/W TAO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3166 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8044
 MISSION OPERATIONS AND DATA ANALYSIS FOR THE CUBIC EXPERIMENT
 02/12/1996 - 02/14/1999 FY99: -\$82 Total: \$458,598
Prin. Invest.: D BURROWS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3270 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8045
 COORDINATED X-RAY AND VLBI OBSERVATIONS OF X-RAY SELECTED BL
 LACERTAE OBJECTS
 07/01/1996 - 12/31/1997 FY99: -\$9,645 Total: \$9,451
Prin. Invest.: R KOLLGUARD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3459 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8046
 ADVANCED SPECTRUM MODELLING OF ACCRETION DISKS FOR CLOSE
 BINARY STAR
 10/10/1996 - 04/30/1999 FY99: \$0 Total: \$98,198
Prin. Invest.: R A WADE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

PENNSYLVANIA
NASA'S UNIVERSITY PROGRAM

NAG 5 3489 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8047**
A MULTIWAVELENGTH STUDY OF THE LOOP I SUPERBUBBLE
11/01/1996 - 10/31/1999 FY99: \$0 Total: \$62,500
Prin. Invest.: D N BURROWS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3654 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8048**
PLANETARY HABITABILITY
03/25/1997 - 06/30/1999 FY99: \$0 Total: \$166,000
Prin. Invest.: D F KASTING
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3707 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8049**
PLANT GRAVITROPISMS AND THE ROLE OF EXPANSINS
12/05/1996 - 07/31/1999 FY99: \$0 Total: \$247,030
Prin. Invest.: D J COSGROVE
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3801 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8050**
COSMOLOGICAL GAMMA RAY BURST MODELS: SIGNATURES AN
11/27/1996 - 05/31/2000 FY99: \$0 Total: \$50,000
Prin. Invest.: P MESZAROB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3856 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8051**
ASSESSING THE IMPACT OF EXPANDINDG URBAN LAND USE USING
REMOTE SENSING DATA & PHYSICALLY BASED SOIL
12/19/1996 - 12/14/1999 FY99: \$121,151 Total: \$362,320
Prin. Invest.: G W PETERSEN
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3970 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8052**
USE OF ARABIDOPSIS TRANSPOSON MUTANTS IN THE STUDY
03/05/1997 - 02/29/2000 FY99: \$161,146 Total: \$405,757
Prin. Invest.: N V FEDOROFF
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3976 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8053**
SIMULATION OF ATMOSPHERIC OXYGEN IN THE COMMUNITY
02/26/1997 - 12/31/1998 FY99: \$0 Total: \$50,000
Prin. Invest.: R NAJJAR
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4018 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8054**
PROVIDES FUNDING FOR YEAR ONE/INCREMENTAL FOR YEAR TWO
02/28/1997 - 02/28/1999 FY99: \$0 Total: \$80,000
Prin. Invest.: C RUT
Tech. Officer: GSFC/D M LE VINE, GSFC/L L THOMPSON
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 4165 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8055**
EXPERIMENTAL RHEOLOGY OF THE VENUSIAN LITHOSPHERE
03/28/1997 - 08/28/1998 FY99: \$0 Total: \$98,104
Prin. Invest.: D MACKWELL
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4301 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8056**
A STUDY OF PLANETARY SYSTEMS AROUND NEUTRON STARS
04/09/1997 - 02/28/2000 FY99: \$83,333 Total: \$175,000
Prin. Invest.: D WOLSZCZAN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4553 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8057**
THE GLOBAL WATER CYCLE: EXTENSION ACROSS THE EART
06/12/1997 - 03/31/2000 FY99: \$1,240,000 Total: \$4,526,984
Prin. Invest.: E BARRON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4826 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8058**
AN ASCA OBSERVATION OF MARKARIAN 6: COMPLEX ABSORP REGION
06/20/1997 - 06/30/2000 FY99: \$0 Total: \$32,000
Prin. Invest.: W BRANDT
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4840 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8059**
THE REGENERATING PROTOPLAST AS A SINGLE CELL MODEL IN PLANTS
06/26/1997 - 05/31/2000 FY99: \$76,910 Total: \$233,157
Prin. Invest.: R CYR, NONE
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 5015 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8060**
COORDINATED STUDIES OF EQUATORIAL MESOSPHERIC & LOWER THER-
MOSPHERIC DYNAMICS BY ROCKET & CADRE
05/28/1993 - 12/31/1998 FY99: \$0 Total: \$152,688
Prin. Invest.: J D RUSSELL
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5035 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8061**
COORDINATED ROCKET AND GROUND-BASED STUDIES OF HIGH-LAT-
ITUDE FINE-SCALE STRUCTURE IN ION/SODIUM..
04/19/1995 - 04/30/2000 FY99: \$0 Total: \$516,849
Prin. Invest.: T J KANE
Tech. Officer: GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5065 **PENNSYLVANIA STATE UNIV. - UNIV. PARK** **8062**
HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) FIRST YEAR OF FUNDING
FOR GRANT
05/03/1996 - 11/30/1999 FY99: \$0 Total: \$507,000
Prin. Invest.: J J BEATTY
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5093 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8063
 RESEARCH IN X-RAY ASTRONOMY
 11/22/1996 - 09/30/1999 FY99: \$461,687 Total: \$1,367,429
Prin. Invest.: D BURROWS, G P GARMIRE
Tech. Officer: GSFC/W GURKIN
CASE Category: 13 - PHYSICS

NAG 5 5136 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8064
 SPIRIT: STUDENT PROJECTS INVOLVING ROCKET INVESTIGATION TECHNIQUES
 04/14/1997 - 10/13/1999 FY99: \$0 Total: \$35,000
Prin. Invest.: J D MITCHELL
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5145 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8065
 CHARACTERIZATION OF SIGMA-0 BLOOMS AS CONSTRAINTS ON TOPEX MICROWAVE RADIOMETER CALM WATER EMISSION
 06/17/1997 - 06/30/1999 FY99: \$0 Total: \$41,546
Prin. Invest.: N WHITE
Tech. Officer: GSFC/D VANDEMARK
CASE Category: 11 - ASTRONOMY

NAG 5 5169 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8066
 PROJECT DROPPS: THE DISTRIBUTION AND ROLE OF PARTICLES IN THE POLAR SUMMER MESOSPHERE
 03/13/1998 - 12/31/2000 FY99: \$68,291 Total: \$124,117
Prin. Invest.: J D MITCHELL
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5174 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8067
 VALIDATION AND PROMPT DISTRIBUTION OF ACCESS DATA FUNDING FOR FIRST YEAR OF GRANT
 03/09/1998 - 01/31/2000 FY99: \$56,200 Total: \$56,200
Prin. Invest.: S COUTU
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5210 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8068
 COSMIC RAY ENERGISTICS AND MASS (CREAM) COSMIC RAY ENERGISTICS AND MASS (CREAM)
 09/22/1998 - 11/30/1999 FY99: \$0 Total: \$85,600
Prin. Invest.: J J BEATTY
Tech. Officer: WFF/B A MERRITT
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 5220 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8069
 GRANT NAGS-5220 - HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) - PI DR. JAMES BEATTY
 03/16/1999 - 03/11/2002 FY99: \$190,000 Total: \$190,000
Prin. Invest.: J J BEATTY
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6023 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8070
 X-RAY MONITORING OF STRONG VARIABILITY IN THE ULTR NARROW-LINE SEYFERT 1 GALAXY RX J0947.0+4721
 08/21/1997 - 08/31/1999 FY99: \$0 Total: \$8,100
Prin. Invest.: W BRANDT
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6194 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8071
 - REMOTELY SENSED INDEX OF DEFORESTATION/URBANIZATION MODELS
 08/28/1997 - 08/31/1999 FY99: \$0 Total: \$174,302
Prin. Invest.: T CARLSON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6197 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8072
 DEVELOPMENT OF NANOTECHNOLOGY SENSORS FOR SPACE APPLIED FALLING SPHERE FOR THE MEASUREMENT OF DENSITY
 08/26/1997 - 12/31/1999 FY99: \$42,030 Total: \$137,105
Prin. Invest.: D L CROSKY
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6199 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8073
 "THE BIOMECHANICS OF EXERCISE COUNTERMEASURES"
 08/12/1997 - 02/14/1999 FY99: \$0 Total: \$137,378
Prin. Invest.: P CAVANAGH
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 11 - ASTRONOMY

NAG 5 6207 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8074
 MECHANISM OF LENGTH-OF-DAY VARIABILITY
 08/01/1997 - 07/31/2000 FY99: \$22,000 Total: \$138,851
Prin. Invest.: S FELDSTEIN
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6357 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8075
 SOIL MOISTURE, SUBSURFACE STORAGE AND RUNOFF AS A DYNAMICAL SYSTEM
 09/29/1997 - 09/14/1998 FY99: -\$42 Total: \$63,458
Prin. Invest.: C DUFFY
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6389 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8076
 MODELING THE AIR-SEA FLUXES OF CARBONYL SULFIDE AND CARBON MONOXIDE USING REMOTELY SENSED DATA
 10/17/1997 - 08/31/2000 FY99: \$20,403 Total: \$138,675
Prin. Invest.: R NAJJAR
Tech. Officer: GSFC/J YODER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6398 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8077
 TWO-YEAR NASA FELLOWSHIP AT PENN STATE
 10/24/1997 - 10/31/2000 FY99: \$38,504 Total: \$75,004
Prin. Invest.: D STAUFFER
Tech. Officer: GSFC/A NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6399 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8078
 THE GAS AND THE STARS OF INTERMEDIATE REDSHIFT GALAXIES (LTSA)
 10/10/1997 - 10/14/2000 FY99: \$107,500 Total: \$168,994
Prin. Invest.: J CHARLTON
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6451 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8079
 EVALUATION AND INTERCOMPARISON OF THREE-DIMENSIONAL MARINE
 CARBON CYCLE MODELS
 10/24/1997 - 12/31/1999 FY99: \$67,493 Total: \$122,711
 Prin. Invest.: R NAJJAR
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6856 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8080
 SPACE-TIME SCALING OF WATER TRANSFERS BETWEEN THE LAND SUR-
 FACE AND THE LOWER ATMOSPHERE
 12/04/1997 - 10/31/1999 FY99: \$0 Total: \$163,955
 Prin. Invest.: A P BARROS
 Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6713 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8081
 PHASE COMPRESSED IMAGE DATA FOR BROAD-AREA LANDSCAPE
 CHANGE ANALYSES AND HARMONIZATION OF IMAGE
 12/30/1997 - 12/31/1999 FY99: \$37,500 Total: \$87,500
 Prin. Invest.: W MEYERS
 Tech. Officer: GSFC/D WILLIAMS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6737 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8082
 THE STATISTICAL CONSULTING CENTER FOR ASTRONOMY (SCCA)
 12/17/1997 - 12/31/1999 FY99: \$32,600 Total: \$64,286
 Prin. Invest.: M AKRITAS
 Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 6768 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8083
 X-RAY EMISSION FROM THE YOUNGEST STARS
 01/21/1998 - 12/14/1998 FY99: -\$4 Total: \$18,496
 Prin. Invest.: E FEIGELSON
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 6852 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8084
 AN RXTE LONG LOOK AT THE BRIGHT SEYFERT 1 GALAXY MCG-6-30-15
 01/13/1998 - 01/14/2000 FY99: \$0 Total: \$10,772
 Prin. Invest.: W BRANDT
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 6906 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8085
 IMPROVING THE GINGA ANALYSIS TOOLS
 02/13/1998 - 01/31/2000 FY99: \$0 Total: \$20,100
 Prin. Invest.: J NOUSEK
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 6907 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8086
 SOFT X-RAY RADIATION FROM ISOLATED NEUTRON STARS
 02/17/1998 - 01/31/2000 FY99: \$44,500 Total: \$87,600
 Prin. Invest.: G PAVLOV
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7017 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8087
 NEUTRON STAR ATMOSPHERES - ATP
 02/17/1998 - 02/14/2000 FY99: \$98,000 Total: \$193,000
 Prin. Invest.: G G PAVLOV
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7121 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8088
 MULTIFREQUENCY MONITORING OF MRK 501
 04/13/1998 - 04/14/2000 FY99: \$0 Total: \$8,875
 Prin. Invest.: R M SAMBRUNA
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7256 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8089
 BROAD-BAND SPECTRA AND VARIABILITY OF THE BRIGHT N ARROW-LINE
 SEYFERT 1 GALAXY H0707-495 & COORDI
 05/01/1998 - 06/30/2000 FY99: \$0 Total: \$21,768
 Prin. Invest.: W N BRANDT
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7276 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8090
 SIMULTANEOUS XTE AND AXAF OBSERVATIONS OF THE CIRCINUS GAL-
 AXY; MULTIFREQUENCY MONITORING O
 04/15/1998 - 04/14/2000 FY99: \$0 Total: \$11,554
 Prin. Invest.: R SAMBRUNA
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7282 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8091
 XTE PROPOSAL - COORDINATED AXAF/RXTE OBSERVATIONS OF NGC
 3783
 04/27/1998 - 11/30/1999 FY99: \$0 Total: \$6,286
 Prin. Invest.: W N BRANDT
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7443 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8092
 INVESTIGATING MESOSCALE CONVECTIVE SYSTEMS & TROPICAL EAS-
 TERLY WAVES IN CENTRAL & WEST AFRICA USING
 06/12/1998 - 06/14/2000 FY99: \$46,000 Total: \$92,000
 Prin. Invest.: G JENKINS, NONE
 Tech. Officer: GSFC/O THIELE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7547 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8093
 SATELLITE TRACKING AND RAINFALL ESTIMATION FOR SHORT-TERM,
 HEAVILY PRECIPITATING STORM EVENTS
 06/22/1998 - 06/30/2001 FY99: \$0 Total: \$235,764
 Prin. Invest.: J L EVANS
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7646 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8094
 ONE YEAR FUNDING FOR TECTONIC CONTROLS ON LANDSCAPE
 DEVELOPMENT...
 08/27/1998 - 02/29/2000 FY99: \$0 Total: \$84,000
 Prin. Invest.: D BURBANK
 Tech. Officer: GSFC/H FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7647 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8095**
 PROPOSAL TO DEVELOP AN EVALUATION PLAN OF NASA'S EARTH SCIENCE INFORMATION PARTNERS' (ESIP)
 08/27/1998 - 12/31/1999 FY99: \$0 Total: \$156,000
Prin. Invest.: A K GLASMEIER, NONE
Tech. Officer: GSFC/M MAIDEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7733 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8096**
 A HARD X-RAY SURVEY OF RADIO-LOUD AGNS
 09/30/1998 - 12/31/1999 FY99: \$0 Total: \$9,800
Prin. Invest.: M V FILIPPENKO
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7776 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8097**
 REMOTE SENSING OF WEST ANTARCTIC ICE SHEET SURFACE MELTING: RECOGNITION, CONTROLS, AND SIGNIFICANCE
 10/27/1998 - 12/31/2001 FY99: \$8,919 Total: \$8,919
Prin. Invest.: R ALLEY
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7781 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8098**
 MEASUREMENT AND ANALYSIS OF THE SPATIAL AND TEMPORAL VARIABILITY OF OROGRAPHIC PRECIPITATION IN
 11/13/1998 - 10/31/1999 FY99: \$160,000 Total: \$160,000
Prin. Invest.: A P BARROS
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7900 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8099**
 NEW ASCA AND ROSAT OBSERVATIONS OF ROTATION-POWERED PULSARS - ADP 98
 01/06/1999 - 01/31/2000 FY99: \$14,272 Total: \$14,272
Prin. Invest.: G PAVLOV
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7925 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8100**
 HIGH-ENERGY ABSORPTION IN BLAZARS: PROBING THE INNER JET ENVIRONMENT (ADP 98)
 01/03/1999 - 12/31/1999 FY99: \$38,145 Total: \$38,145
Prin. Invest.: R M SAMBRUNA
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8005 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8101**
 A SMALL, LIGHTWEIGHT RADIOMETER TO IMPROVE THE TEMPORAL SAMPLING OF RAINFALL
 01/12/1999 - 01/14/2000 FY99: \$93,749 Total: \$93,749
Prin. Invest.: C S RUF
Tech. Officer: GSFC/C D KUMMEROW
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8107 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8102**
 AXAF, XMM AND ASTRO-E INVESTIGATIONS OF SEYFERT QUASAR CENTRAL ENGINES: EXPLORING THE ENVIRONMENTS
 02/05/1999 - 02/14/2000 FY99: \$58,900 Total: \$58,900
Prin. Invest.: W N BRANDT, NONE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8369 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8103**
 A METASTABLE ASSOCIATED ABSORBER IN THE BROAD-LINE RADIO GALAXY ARP 102B (ADP 98)
 03/02/1999 - 02/29/2000 FY99: \$19,942 Total: \$19,942
Prin. Invest.: M ERACELOUS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8401 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8104**
 SWIFT - PHASE A CONCEPT STUDY
 03/05/1999 - 12/31/1999 FY99: \$100,000 Total: \$100,000
Prin. Invest.: J NOUSEK
Tech. Officer: GSFC/L HILLARD
CASE Category: 11 - ASTRONOMY

NAG 5 8422 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8105**
 2-RAY STUDIES OF YOUNG STELLAR OBJECTS (LTSA 98)
 04/01/1999 - 03/31/2000 FY99: \$25,787 Total: \$25,787
Prin. Invest.: E D FEIGELSON
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8710 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8106**
 METHANE & HYDROGEN IN EARTH'S PRIMITIVE ATMOSPHERE
 08/02/1999 - 09/30/2000 FY99: \$79,379 Total: \$79,379
Prin. Invest.: J F KASTING
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 8735 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8107**
 MERGING MODELS AND OBSERVATIONS OF THE ATMOSPHERIC BOUNDARY LAYER'S MESOSCALE STRUCTURE DURING SGP-9
 08/17/1999 - 08/14/2000 FY99: \$58,550 Total: \$58,550
Prin. Invest.: D R STAUFFER
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8738 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8108**
 SPACE-TIME DYNAMICS OF SOIL MOISTURE & TEMPERATURE - SCALE ISSUES
 08/17/1999 - 08/14/2000 FY99: \$23,666 Total: \$23,666
Prin. Invest.: D MILLER
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8795 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8109**
 "THIN FILM TRANSISTOR ADDRESSING ARRAYS FOR MICRO- WELL GAMMA RAY DETECTORS"
 09/09/1999 - 12/31/1999 FY99: \$30,000 Total: \$30,000
Prin. Invest.: T JACKSON
Tech. Officer: GSFC/S HUNTER
CASE Category: 11 - ASTRONOMY

PENNSYLVANIA

NASA'S UNIVERSITY PROGRAM

NAG 8 1272 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8110
GRAVITATIONAL EFFECT ON THE DEVELOPMENT OF LASER WELDPOL
AND SOLIDIFICATIONMICROSTRUCTURE
05/09/1996 - 05/22/2000 FY99: \$150,000 Total: \$450,000
Prin. Invest.: J SINGH
Tech. Officer: MSFC/P DOTY, MSFC/R POWER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1286 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8111
JOVE RESEARCH
01/21/1997 - 08/31/2000 FY99: \$0 Total: \$34,303
Prin. Invest.: G SUBRAMANIAM
Tech. Officer: MSFC/JF DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1398 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8112
COMBUSTION MEASUREMENTS IN MULTI-FUEL, THOTTLEABLE OMS
ENGINES
08/01/1997 - 10/31/1998 FY99: \$0 Total: \$301,291
Prin. Invest.: W E ANDERSON
Tech. Officer: MSFC/H TRINH
CASE Category: 13 - PHYSICS

NAG 8 1452 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8113
R/S GRAVITATIONAL EFFECTS ON DISTORTION IN SINTERING
02/01/1998 - 01/31/2002 FY99: \$110,000 Total: \$206,250
Prin. Invest.: R M GERMAN
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1530 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8114
NUMERICAL STUDY OF THE ROLE OF SHALLOW CONVECTION ON MOIS-
TURE TRANSPORT AND CLIMATE
05/06/1998 - 04/30/2001 FY99: \$148,849 Total: \$283,849
Prin. Invest.: N L SEAMAN
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 1143 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8115
FLAME SPREADING & VIOLENT ENERGY RELEASE PHENOMENA OF ALUMI-
NUM TUBING BURNING IN GASEOUS ENVIRONMEN
09/08/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: K K KUO
Tech. Officer: JSC/J M STOLTZFUS
CASE Category: 12 - CHEMISTRY

NAG 9 1173 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8116
FACILITATED BLOOD PRESSURE CONTROL
09/22/1999 - 09/30/2002 FY99: \$100,000 Total: \$100,000
Prin. Invest.: J A PAWELCZYK
Tech. Officer: JSC/C LLOYD
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 1356 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8117
CENTER FOR SPACE PROPULSION ENGINEERING
07/18/1988 - 12/31/1998 FY99: \$0 Total: \$8,940,743
Prin. Invest.: C L MERKLE
Tech. Officer: HQ/E E VANLANDINGHAM
CASE Category: 49 - ENGINEERING, OTHER

NAG10 187 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8118
IMPROVING LIGHTNING FORECASTS FOR THE SPACE PROGRAM
03/26/1996 - 09/30/1999 FY99: \$0 Total: \$73,400
Prin. Invest.: G S FORBES, S HORRART
Tech. Officer: KSC/L MAIER, KSC/J MADURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG10 192 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8119
ENVIRONMENTALLY ACCEPTABLE REPLACEMENTS FOR LOX CLEANING
SOLVENTS
04/23/1996 - 12/31/1998 FY99: \$0 Total: \$100,000
Prin. Invest.: W E ANDERSON
Tech. Officer: KSC/C E MCCASKEY
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG10 205 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8120
STUDY "GRAVITY EFFECTS ON SEEDLING MORPHOGENESIS"
01/28/1997 - 10/31/1999 FY99: \$130,012 Total: \$274,368
Prin. Invest.: D J COSGROVE
Tech. Officer: KSC/W M KNOTT
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 5 31787 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8121
DESIGN & DEVELOPMENT OF DIGITAL PROCESSING UNIT
10/01/1991 - 09/30/1998 FY99: -\$5,750 Total: \$931,850
Prin. Invest.: F CORDORA
Tech. Officer: GSFC/R DONNELLY
CASE Category: 42 - ASTRONAUTICAL ENGR

NAS 8 38252 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8122
AXAF CCD IMAGING SPECTROMETER
06/27/1990 - 04/01/2001 FY99: \$1,260,000 Total: \$6,500,000
Prin. Invest.: G P GARMERE
Tech. Officer: MSFC/N B CUMINGS
CASE Category: 11 - ASTRONOMY

NAS 8 40890 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8123
R/S "EXPERIMENTAL & ANALYTICAL MODELING OF THE ROCKET EJECTOR
MODE"
09/04/1996 - 02/15/2000 FY99: \$232,543 Total: \$832,543
Prin. Invest.: C MERKLE, R SANTORO
Tech. Officer: MSFC/J HUETER/J TURNER
CASE Category: 41 - AERONAUTICAL ENGR

NAS 9 19573 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8124
MISSION SUPPORT SERVICES OF DR JAMES PAWELCZYK
09/30/1996 - 07/03/1998 FY99: \$0 Total: \$371,728
Prin. Invest.: D A PAWELCZYK
Tech. Officer: JSC/K E NEWKIRK
CASE Category: 59 - LIFE SCIENCE, OTHER

NAS 9 99095 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8125
FOOT REATION FORCES DURING SPACE FLIGHT
05/01/1999 - 04/30/2002 FY99: \$150,515 Total: \$150,515
Prin. Invest.: P CAVANAGH
Tech. Officer: JSC/M KAMMAN
CASE Category: 56 - MEDICL

NCC 1 249 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8126**
 DAMAGE MONITORING AND LIFE EXTENDING CONTROL OF AI AIRCRAFT
 STRUCTURES
 01/17/1997 - 08/31/1999 FY99: \$1 Total: \$121,910
Prin. Invest.: A RAY
Tech. Officer: LARC/S M JOSHI
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 300 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8127**
 HOX MEASUREMENTS IN PEM TROPOSPHERIC B WITH THE AIRBORNE
 TROPOSPHERIC HYDROGEN OXIDES SENSOR
 07/07/1998 - 05/31/2001 FY99: \$118,000 Total: \$440,000
Prin. Invest.: W H BRUNE
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 329 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8128**
 FUZZY STRUCTURES ANALYSIS IN NASTRAN
 03/05/1999 - 12/31/1999 FY99: \$35,646 Total: \$35,646
Prin. Invest.: V W SPARROW
Tech. Officer: LARC/R D BUEHRLE, LARC/J H ROBINSON
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 943 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8129**
 PENN STATE ROTORCRAFT CENTER OF EXCELLENCE
 02/26/1996 - 12/31/1999 FY99: \$398,807 Total: \$1,596,381
Prin. Invest.: F C SMITH, L N LONG
Tech. Officer: ARC/Y H YU, ARC/J M DAVIS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 1057 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8130**
 CREATING THE PENN STATE ASTROBIOLOGY RESEARCH CENT ER
 09/17/1998 - 06/30/2003 FY99: \$792,086 Total: \$1,107,086
Prin. Invest.: H OHMOTO
Tech. Officer: ARC/P PILEWSKIE, ARC/R DEPICE
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 1122 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8131**
 A NOVEL OXIDATION-RESISTANT THERMAL PROTECTION MAT ERIAL
 06/07/1999 - 05/31/2000 FY99: \$30,040 Total: \$30,040
Prin. Invest.: L R RADOVIC
Tech. Officer: ARC/C E JOHNSON, ARC/M D REZIN
CASE Category: 49 - ENGINEERING, OTHER

NCC 2 5307 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8132**
 DETERMINING THE EFFECT OF CARBON DIOXIDE CLOUDS ON MARTIAN
 PALEOCLIMATE
 02/11/1999 - 03/31/2000 FY99: \$60,000 Total: \$60,000
Prin. Invest.: J F KASTING
Tech. Officer: ARC/R E YOUNG, ARC/R M HABERLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5341 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8133**
 LIFE IN EXTREME ENVIRONMENTS RESEARCH #2
 08/05/1999 - 07/31/2000 FY99: \$15,000 Total: \$15,000
Prin. Invest.: C FISHER
Tech. Officer: ARC/M T FLYNN, ARC/J HINES
CASE Category: 33 - OCEANOGRAPHY

NCC 3 597 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8134**
 MULTIAXIAL DEFORMATION STUDY OF HIGH TEMPERATURE M ETALLIC
 MATERIALS
 01/28/1998 - 11/30/2000 FY99: \$56,520 Total: \$135,520
Prin. Invest.: C J LISSENOEN
Tech. Officer: GRC/B A LERCH, GRC/J R ELLIS
CASE Category: 46 - MECHANICAL ENGR

NCC 3 718 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8135**
 COMPUTATIONAL AND EXPERIMENTAL STUDY OF ENERGETIC MATERIALS
 IN A COUNTERLOW MICROGRAVITY ENVIRONMENT
 06/28/1999 - 06/09/2003 FY99: \$23,627 Total: \$23,627
Prin. Invest.: R A YETTER
Tech. Officer: GRC/D L UBRAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 5 432 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8136**
 LUAAU II: LEARNING USING ERAST AIRCRAFT MISSIONS FOR UNDERSTAND-
 ING REMOTE SENSING, ATMOSPHERIC SAMP
 09/20/1999 - 09/30/2000 FY99: \$180,000 Total: \$180,000
Prin. Invest.: R F DEVON, NONE
Tech. Officer: GSFC/N LAL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 46 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8137**
 TRIPROPELLANT COMBUSTION AND OXYGEN RICH ROCKET COMBUSTOR
 TECHNOLOGIES
 03/15/1996 - 06/30/1998 FY99: \$0 Total: \$1,788,420
Prin. Invest.: R J SANTORO
Tech. Officer: MSFC/H P TRINH
CASE Category: 41 - AERONAUTICAL ENGR

NGT 10034 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8138**
 USERC GRADUATE STUDENT ASSISTANTSHIPS
 01/09/1995 - 12/31/1998 FY99: \$0 Total: \$940,914
Prin. Invest.: C MERKLE
Tech. Officer: HQ/V BITTINGER
CASE Category: 49 - ENGINEERING, OTHER

NGT 30280 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8139**
 NGT-30280/PENNSYLVANIA STATE UNIV/GLOBAL CHANGE FELLOWSHIP
 PROGRAM
 10/02/1994 - 08/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: D LAMB
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 40002 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8140**
 NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM
 09/28/1989 - 01/31/1998 FY99: \$0 Total: \$2,880,044
Prin. Invest.: R DEVON
Tech. Officer: HQ/L T KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51638 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8141**
 GRAD STUDENT RESEARCH PROGRAM
 08/15/1996 - 10/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: J CHARLTON
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 - ASTRONOMY

<p>NGT 1 52109 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8142 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP) 06/15/1995 - 06/30/1999 FY99: \$22,000 Total: \$88,001 <i>Prin. Invest.:</i> E C SMITH, A T HOWARD <i>Tech. Officer:</i> LARC/M W NIXON <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p>	<p>NGT 5 30171 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8150 INTEGRATED SATELLITE, MODEL, AND FIELD-BASED STUDIES OF CONTROLSON THE EXTENT OF SURFACE MELTING I 09/04/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> R B ALLEY, B DAS <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p>
<p>NGT 1 52166 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8143 GRADUATE STUDENT RESEARCHERS PROGRAM 05/22/1997 - 06/30/1999 FY99: -\$11,493 Total: \$32,507 <i>Prin. Invest.:</i> D B BAKER <i>Tech. Officer:</i> LARC/J B MALONE, LARC/C V ECKSTROM <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p>	<p>NGT 5 30193 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8151 EDDY CORRELATION MEASUREMENT OF CO2 FLUX IN VOLCANIC-HYDROTHERMAL ENVIRONMENTS SYS/STUDENT J. LEWIC 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> S BRANTLEY <i>Tech. Officer:</i> GSFC/M WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p>
<p>NGT 1 52191 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8144 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 05/20/1998 - 06/30/2000 FY99: \$22,000 Total: \$32,000 <i>Prin. Invest.:</i> P K MCLAUGHLIN <i>Tech. Officer:</i> LARC/T NORUM, LARC/B J JANSEN <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p>	<p>NGT 5 30208 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8152 UNDERSTANDING HIGH TROPICAL CIRRUS/STUDENT: MATTHEW T. BOEHM 08/18/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> J VERLINDE <i>Tech. Officer:</i> GSFC/M WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p>
<p>NGT 3 52359 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8145 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM 07/15/1999 - 08/14/2000 FY99: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> K W WANG <i>Tech. Officer:</i> GRC/F J MONTAGNI <i>CASE Category:</i> 49 - ENGINEERING, OTHER</p>	<p>NGT 5 40064 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8153 SUPPORT TO PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM. 02/25/1997 - 01/31/2000 FY99: \$492,500 Total: \$1,372,500 <i>Prin. Invest.:</i> R DEVON <i>Tech. Officer:</i> HQ/J DASCH <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>
<p>NGT 5 67 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8146 GSRP TRAINING GRANT FOR BECKY J. REIFENSTAHL. TITLE: AN INDICATOR OF THE STATE OF ENSO APPLIED T 05/28/1998 - 08/14/1999 FY99: \$0 Total: \$22,000 <i>Prin. Invest.:</i> A M CARLETON <i>Tech. Officer:</i> GSFC/G SOFFEN <i>CASE Category:</i> 11 - ASTRONOMY</p>	<p>NGT 5 50049 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8154 THE THREE DIMENSIONAL STRUCTURE OF THE HOT INTERSTELLAR 07/17/1997 - 08/14/1999 FY99: \$0 Total: \$44,000 <i>Prin. Invest.:</i> D BURROWS <i>Tech. Officer:</i> GSFC/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>
<p>NGT 5 30060 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8147 IMPROVING SHORT-TERM QUANTITATIVE PRECIPITATION FOR RECASTING IN MOUNTAINOUS REGIONS 10/18/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000 <i>Prin. Invest.:</i> A BARROS <i>Tech. Officer:</i> GSFC/M WEI <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>	<p>NGT 5 50112 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8155 GRADUATE STUDENT RESEARCH PROGRAM: STUDENT NAME: 09/04/1997 - 08/14/1999 FY99: \$0 Total: \$44,000 <i>Prin. Invest.:</i> C CROYSKEY <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>
<p>NGT 5 30066 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8148 GLOBAL CHANGE FELLOWSHIP PRGM: ATMOSPHERIC OXIDATION OF THE HYDROXYL RADICAL AND OTHER TRACE GAS SPECIES 09/09/1997 - 08/31/1998 FY99: \$0 Total: \$22,000 <i>Prin. Invest.:</i> W BRUNE <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>	<p>NGT 5 50113 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8156 GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: E 09/04/1997 - 07/31/1998 FY99: \$0 Total: \$22,000 <i>Prin. Invest.:</i> P WALKER <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>
<p>NGT 5 30139 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8149 STUDIES OF OH AND HO2 IN THE PRESENCE OF CIRRUS CLOUDS NEAR THE TROPOPAUSE 08/27/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> BRUNES, W SIMPAS <i>Tech. Officer:</i> HQ/M WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p>	<p>NGT 5 50147 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8157 AN INVESTIGATION OF COMPOSTING PLANT AND HUMAN WASTE BIOLOGICAL LIFE SUPPORT SYSTEM (CELSS) 09/11/1997 - 07/31/1999 FY99: \$0 Total: \$44,000 <i>Prin. Invest.:</i> S MCCLINTOCK <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>

NASA'S UNIVERSITY PROGRAM

PENNSYLVANIA

NGT 5 50178 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8158**
 AN INVESTIGATION OF CARBON DIOXIDE FLUX MEASUREMENTS IN VOL-
 CANIC & GEOTHERMAL SYSTEMS/GSRP:WERNER C
 10/09/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: S BRANTLEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTIINTERDISCIPL, OTHER

NGT 5 50236 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8159**
 GALAXY DISK EVOLUTION_(STUDENT: DAVID ANDERSEN)
 05/27/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: M BERSHADY
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50247 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8160**
 DEEP OBSERVATIONS WITH NASA'S CHANDRA X-RAY OBSERVATORY:
 RESOLVING THE DISCRETE SOURCES OF THE COS
 06/02/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: N BRANDT
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52813 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8161**
 GRAD STUDENT RESEARCHERS PROGRAM
 07/25/1996 - 06/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: M C SHOEMAKER
Tech. Officer: MSFC/F SIX
CASE Category: 49 - ENGINEERING, OTHER

NGT 8 52821 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8162**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/31/1996 - 07/01/1998 FY99: -\$857 Total: \$43,143
Prin. Invest.: M G SCHMIDT
Tech. Officer: MSFC/G YOUNG
CASE Category: 45 - ELECTRICAL ENGR

NGT 8 52829 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8163**
 GRAD STUDENT RESEARCHERS PROGRAM FOR GARRY ESTEP
 09/25/1996 - 06/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: M K LEHMAN
Tech. Officer: MSFC/K TUCKER
CASE Category: 41 - AERONAUTICAL ENGR

NGT 8 52841 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8164**
 R/S "GRADUATE STUDENT RESEARCH PROGRAM FELLOWSHIP"
 07/29/1997 - 09/30/1998 FY99: -\$2,339 Total: \$19,661
Prin. Invest.: D A SANTAVICCA
Tech. Officer: MSFC/J DOWDY
CASE Category: 46 - MECHANICAL ENGR

NGT 8 52856 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8165**
 ADVANCED SPACE PROPULSION USING ANTIMATTER
 07/01/1998 - 08/14/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: G A SMITH
Tech. Officer: MSFC/J F DOWDY
CASE Category: 41 - AERONAUTICAL ENGR

NGT 8 52876 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8166**
 ADVANCED SPACE PROPULSION USING ANTIMATTER, (GSRP)
 08/13/1999 - 08/15/2001 FY99: \$22,000 Total: \$22,000
Prin. Invest.: G A SMITH
Tech. Officer: MSFC/J DOWDY
CASE Category: 46 - MECHANICAL ENGR

NAG 5 6238 TEMPLE UNIVERSITY **8167**
 016 UTILIZATION OF NEURAL NETWORK COMPUTING FOR COULT DIAGNO-
 SIS.
 09/15/1997 - 03/14/1999 FY99: \$0 Total: \$49,590
Prin. Invest.: S K BISWAS
Tech. Officer: GSFC/B C DRAKE
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 5 8649 TEMPLE UNIVERSITY **8168**
 TO DEVELOP A PROTOTYPE AUTOMATED NETWORK FAULT DIAGNOSIS
 SYSTEM FOR A MULTI-CAST BASED IP NETWORK
 07/28/1999 - 01/31/2001 FY99: \$59,967 Total: \$59,967
Prin. Invest.: S K BISWAS
Tech. Officer: GSFC/B C DRAKE
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 9 1023 THOMAS JEFFERSON UNIVERSITY **8169**
 FACTORS MODULATING RADIATION INDUCED G2-DELAYS
 07/01/1998 - 06/30/2001 FY99: \$223,962 Total: \$283,962
Prin. Invest.: C ILIAKIS
Tech. Officer: JSC/F A GUGINOTTA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1245 UNIVERSITY OF PENNSYLVANIA **8170**
 VIRTUAL INTEGRATION FOR AUTONOMOUS MICROROBOTS
 08/10/1998 - 07/31/1999 FY99: \$0 Total: \$19,900
Prin. Invest.: K A BOAHEN
Tech. Officer: ARC/S F ZORNETZER
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2058 UNIVERSITY OF PENNSYLVANIA **8171**
 PHYSICS OF COLLOIDS IN SPACE COMBUSTION OF UNCONFINED DROP-
 LET CLUSTERS IN MICRO
 07/30/1997 - 06/24/2002 FY99: \$197,000 Total: \$630,000
Prin. Invest.: D A WEITZ, P N PUSEY
Tech. Officer: GRC/B S SIGNH
CASE Category: 13 - PHYSICS

NAG 3 2111 UNIVERSITY OF PENNSYLVANIA **8172**
 ENGINEERING OF NOVEL BIOCOLLOID SUSPENSIONS ENGINEERING OF
 NOVEL BIOCOLLOID SUSPENSIONS
 01/13/1998 - 12/31/1999 FY99: \$52,210 Total: \$102,533
Prin. Invest.: D A HAMMER
Tech. Officer: GRC/D GRIFFIN
CASE Category: 43 - CHEMICAL ENGR

NAG 3 2172 UNIVERSITY OF PENNSYLVANIA **8173**
 COLLOIDAL ASSEMBLY IN ENTROPICALLY DRIVEN LOW-VOLUME FRACTION
 BINARY PARTICLE SUSPENSION
 06/08/1998 - 02/28/2002 FY99: \$139,500 Total: \$233,991
Prin. Invest.: A G YODH
Tech. Officer: GRC/R A WILKINSEN
CASE Category: 13 - PHYSICS

NAG 5 3990 UNIVERSITY OF PENNSYLVANIA 8174
 PERFORMANCE ASSESSMENT USING DYNAMIC STIMULATION A ANALYSIS
 FOR IVA AND EVA
 02/26/1997 - 02/28/2000 FY99: \$217,999 Total: \$625,699
Prin. Invest.: N I BADLER
Tech. Officer: GSFC/J ELLISON
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4274 UNIVERSITY OF PENNSYLVANIA 8175
 ENVIRONMENTAL BIOMEDICAL RESEARCH DATA CENTER
 04/04/1997 - 11/30/1998 FY99: \$0 Total: \$392,400
Prin. Invest.: J LAMBERTSEN
Tech. Officer: GSFC/L C CHAMBERS
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6200 UNIVERSITY OF PENNSYLVANIA 8176
 CO2-O2 INTERACTIONS IN EXTENSION OF TOLERANCE TO H
 09/05/1997 - 03/31/1999 FY99: \$0 Total: \$120,000
Prin. Invest.: C LAMBERTSEN
Tech. Officer: GSFC/L CHAMBERS
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 8767 UNIVERSITY OF PENNSYLVANIA 8177
 COUPLING COMPUTER VISION AND ASTRONAUT PERFORMANCE FOR
 MULTI-PERSON MODELING AND ANALYSIS
 08/25/1999 - 08/31/2000 FY99: \$51,250 Total: \$51,250
Prin. Invest.: D N METAXAS
Tech. Officer: GSFC/R CROUCH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1350 UNIVERSITY OF PENNSYLVANIA 8178
 FOR RESEARCH ENTITLED: QUANTITATIVE ANALYSIS INTER ACTIONS DUR-
 ING MEMBRANE PROTEIN CRYSTALLIZATION"
 06/19/1997 - 11/30/2000 FY99: \$195,049 Total: \$478,747
Prin. Invest.: P LOLL*Prin. Invest.:* NONE
Tech. Officer: MSFC/R CROMISE, MSFC/C R TALLEY
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1483 UNIVERSITY OF PENNSYLVANIA 8179
 SURFACE TRANSFORMATION OF REACTIVE GLASS IN A MICROGRAVITY
 ENVIRONMENT
 02/03/1998 - 01/31/2002 FY99: \$102,167 Total: \$175,500
Prin. Invest.: P DUCHEYNE
Tech. Officer: MSFC/P M DOTY
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 817 UNIVERSITY OF PENNSYLVANIA 8180
 USE OF BIOACTIVE GLASS PARTICLES AS MICROCARRIERS IN
 MICROGRAVITY ENVIRONMENT
 08/29/1995 - 09/17/2000 FY99: \$0 Total: \$730,000
Prin. Invest.: P S AYYASWAMY
Tech. Officer: JSC/N PELLIS
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1047 UNIVERSITY OF PENNSYLVANIA 8181
 MEASURE UROPONTIN FROM SAMPLE COLLECTION
 07/21/1998 - 07/31/2000 FY99: \$0 Total: \$12,000
Prin. Invest.: J R HOYER
Tech. Officer: JSC/C SAMS
 CASE Category: 56 - MEDICL

NAG 9 1161 UNIVERSITY OF PENNSYLVANIA 8182
 PREDICTING VULNERABILITY OF PERFORMANCE IMPAIRMENT FROM
 SLEEP LOSS
 09/21/1999 - 09/20/2000 FY99: \$25,000 Total: \$25,000
Prin. Invest.: H VAN D
Tech. Officer: JSC/C W LLOYD
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 3628 UNIVERSITY OF PENNSYLVANIA 8183
 ENVIRONMENTAL BIOMEDICAL RESEARCH DATA CENTER
 06/03/1993 - 11/30/1998 FY99: -\$1,837 Total: \$703,742
Prin. Invest.: C J LAMBERTSEN
Tech. Officer: HQ/R J WHITE
 CASE Category: 56 - MEDICL

NAGW 4359 UNIVERSITY OF PENNSYLVANIA 8184
 CO2-O2 INTERACTIONS IN EXTENSION OF TOLERANCE TO A CUTE HYPO-
 XIA
 03/10/1995 - 03/31/1998 FY99: \$0 Total: \$240,000
Prin. Invest.: C J LAMBERTSEN
Tech. Officer: HQ/F SULZMAN
 CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 51393 UNIVERSITY OF PENNSYLVANIA 8185
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/18/1995 - 08/31/1998 FY99: \$0 Total: \$43,220
Prin. Invest.: N H FARHAT
Tech. Officer: JPL/C HICKS
 CASE Category: 45 - ELECTRICAL ENGR

NGT 5 30165 UNIVERSITY OF PENNSYLVANIA 8186
 DEVELOPMENT OF A TIME RESOLVED VISIBLE AND ULTRAVIOLET SPEC-
 TROSCOPIC TECHNIQUE FOR MEASURING RES
 08/31/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: H DAI, L LETENDRE
Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50210 UNIVERSITY OF PENNSYLVANIA 8187
 THE INFLUENCE OF MOLECULAR PROPERTIES ON THE DYNAMICS OF
 CELL ADHESION
 07/10/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: D A HAMMER
Tech. Officer: HQ/A NURRIDIN
 CASE Category: 43 - CHEMICAL ENGR

NGT 5 50267 UNIVERSITY OF PENNSYLVANIA 8188
 ENGINEERING BIOADHESIVE COLLOIDAL SUSPENSIONS
 07/07/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: D A HAMMER
Tech. Officer: GSFC/L SMITH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1186 UNIVERSITY OF PITTSBURGH 8189
 VESTIBULO-AUTONOMIC CIRCUITS
 03/17/1998 - 09/30/1999 FY99: \$175,309 Total: \$275,309
Prin. Invest.: C D BALABAN, C A SCUDDER
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1833 UNIVERSITY OF PITTSBURGH 8190
 THE DISSOLUTION OF AN INTERFAC BETWEEN MISCIBLE LIQUIDS
 05/28/1996 - 05/28/2000 FY99: \$0 Total: \$175,000
Prin. Invest.: J V MAHER
Tech. Officer: GRC/R A WILKINSON
CASE Category: 13 - PHYSICS

NAG 3 2013 UNIVERSITY OF PITTSBURGH 8191
 WIDE-FREQUENCY & WIDE-TEMPERATURE RANGE CHARACTERIZATION
 OF SOFT MAGNETIC-MATERIALS
 02/24/1997 - 08/30/1998 FY99: \$0 Total: \$50,413
Prin. Invest.: W R WIESERMAN
Tech. Officer: GRC/G E SCHWARZE
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2132 UNIVERSITY OF PITTSBURGH 8192
 SMALL - SCALE STRUCTURE OF TURBULENCE SMALL STRUCTURE OF
 TURBULENCE
 02/27/1998 - 01/20/2000 FY99: \$35,000 Total: \$70,000
Prin. Invest.: W GOLDBURG
Tech. Officer: GRC/R SKARCH
CASE Category: 13 - PHYSICS

NAG 3 2149 UNIVERSITY OF PITTSBURGH 8193
 SPECTROSCOPY STUDIES OF SILICON CARBIDE FOR HIGH POWERED
 APPLICATIONS
 04/02/1998 - 01/24/2000 FY99: \$60,000 Total: \$120,000
Prin. Invest.: W J CHOYKE, R P DEVATY
Tech. Officer: GRC/J A POWELL
CASE Category: 13 - PHYSICS

NAG 5 661 UNIVERSITY OF PITTSBURGH 8194
 SUBORBITAL PROGRAM IN MAGNETOSPHERIC & IONOSPHERIC PHYSICS
 05/04/1990 - 06/30/2000 FY99: \$0 Total: \$1,006,693
Prin. Invest.: E C ZIPF
Tech. Officer: GSFC/W B JOHNSON, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 3642 UNIVERSITY OF PITTSBURGH 8195
 GEOLOGIC MAPPING OF REULL VALLIS, MARS
 02/13/1997 - 09/30/1999 FY99: \$40,900 Total: \$91,400
Prin. Invest.: D A CROWN
Tech. Officer: GSFC/J G GRANT
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3723 UNIVERSITY OF PITTSBURGH 8196
 PHOTOMETRIC ANALYSIS OF SPACECRAFT PLANETARY IMAGE
 02/12/1997 - 10/31/1999 FY99: \$82,300 Total: \$232,007
Prin. Invest.: S W HAPKE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4037 UNIVERSITY OF PITTSBURGH 8197
 MODELS FOR THE EMPLACEMENT OF LAVA FLOWS: STYLES ON MARS
 02/27/1997 - 02/28/2000 FY99: \$47,700 Total: \$143,100
Prin. Invest.: D A CROWN
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4116 UNIVERSITY OF PITTSBURGH 8198
 ELECTRON-ION RECOMBINATION PROCESSES RELATING TO P
 03/03/1997 - 12/31/1999 FY99: \$60,000 Total: \$275,900
Prin. Invest.: D JOHNSON
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4288 UNIVERSITY OF PITTSBURGH 8199
 ALLEGHENY OBSERVATORY SEARCH FOR PLANETARY SYSTEMS
 04/15/1997 - 12/31/1999 FY99: \$13,333 Total: \$210,000
Prin. Invest.: D D GATEWOOD
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4848 UNIVERSITY OF PITTSBURGH 8200
 KECK MAP DYNAMICAL CHARACTERIZATION OF NEIGHBORING
 09/05/1997 - 06/30/2000 FY99: \$87,600 Total: \$282,013
Prin. Invest.: D GATEWOOD
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 6164 UNIVERSITY OF PITTSBURGH 8201
 A CROSS DISCIPLINARY LITERACY COURSE ON EARTH SYSTEMS IN THE 21ST
 CENTURY.
 08/27/1997 - 07/31/1999 FY99: \$0 Total: \$47,029
Prin. Invest.: A A PANAH
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6274 UNIVERSITY OF PITTSBURGH 8202
 GLOBAL HEALTH NETWORK (GHNET)_PROJECT DEVELOPMENT
 08/29/1997 - 08/31/1998 FY99: \$0 Total: \$100,000
Prin. Invest.: R LAPORTE
Tech. Officer: GSFC/C DOARN
CASE Category: 56 - MEDICAL

NAG 5 7930 UNIVERSITY OF PITTSBURGH 8203
 THE NATURE AND EVOLUTION OF THE GASEOUS AND STELLAR COM-
 PONENTS OF THE GALAXY POPULATION ASSOCIATE
 12/14/1998 - 12/14/1999 FY99: \$106,828 Total: \$106,828
Prin. Invest.: D A TURNSHEK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8211 UNIVERSITY OF PITTSBURGH 8204
 QUANTITATIVE SPECTROSCOPIC ANALYSES OF MASSIVE STARS (LTS98)
 02/26/1999 - 02/29/2000 FY99: \$80,407 Total: \$80,407
Prin. Invest.: J D HILLIER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8531 UNIVERSITY OF PITTSBURGH 8205
 MINIATURE IN SITU GEOCHRONOLOGY INSTRUMENT FOR PLANETARY
 SURFACE DEPLOYMENT: BREADBOARD DEVELOPMENT
 06/15/1999 - 06/30/2000 FY99: \$58,242 Total: \$58,242
Prin. Invest.: B W STEWART
Tech. Officer: GSFC/B BETTS
CASE Category: 11 - ASTRONOMY

NAG 5 8546 UNIVERSITY OF PITTSBURGH 8206
 UNRAVELING THE EVOLUTION OF GALAXIES (LISA 98)
 05/21/1999 - 03/31/2000 FY99: \$91,293 Total: \$91,293
Prin. Invest.: A CONNOLLY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 8 1360 UNIVERSITY OF PITTSBURGH 8207
 RESEARCH "USE OF NASA BIOREACTOR TO STUDY CELL CYCLE REGULATION"
 06/05/1997 - 11/29/2000 FY99: \$132,789 Total: \$367,428
Prin. Invest.: C TALLEY
Tech. Officer: MSFC/P VAUGHN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1587 UNIVERSITY OF PITTSBURGH 8208
 R/S FREELY SYSPENED LIQUID FILMS AND THEIR APPLICATIONS IN BIOLOGICAL RESEARCH
 01/28/1999 - 11/30/2002 FY99: \$93,000 Total: \$93,000
Prin. Invest.: X L WU
Tech. Officer: MSFC/B GUYNES
CASE Category: 61 - PSYCHOLOGY BIOLOGY

NAG 9 835 UNIVERSITY OF PITTSBURGH 8209
 GROWTH, METABOLISM, AND DIFFERENTIATION OF MIP
 09/19/1995 - 03/17/2000 FY99: \$0 Total: \$760,000
Prin. Invest.: J M JESSUP
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 1036 UNIVERSITY OF PITTSBURGH 8210
 SLEEPING SHORT
 06/22/1998 - 07/26/2001 FY99: \$154,000 Total: \$211,000
Prin. Invest.: T H MONK
Tech. Officer: JSC/C W LLOYD
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 19407 UNIVERSITY OF PITTSBURGH 8211
 HUMAN CIRCADIAN RHYTHMS & SLEEP IN SPACE
 10/04/1995 - 04/30/1999 FY99: \$19,863 Total: \$398,863
Prin. Invest.: T H MONK
Tech. Officer: JSC/J VILLAREAL
CASE Category: 56 - MEDICL

NGT 1 52186 UNIVERSITY OF PITTSBURGH 8212
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 04/29/1998 - 04/30/1999 FY99: \$12,001 Total: \$22,001
Prin. Invest.: W W CLARK, C HYDER
Tech. Officer: LARC/G C HORNER, LARC/L G HORTA
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52188 UNIVERSITY OF PITTSBURGH 8213
 GRADUATE STUDENT RESEARCHERS PROGRAM
 04/29/1998 - 04/30/1999 FY99: \$12,001 Total: \$22,001
Prin. Invest.: W CLARK, C WOOD
Tech. Officer: LARC/G C HORNER, LARC/L G HORTA
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 30019 UNIVERSITY OF PITTSBURGH 8214
 PROVIDING EARTH SYSTEMS SCIENCE APPLICATIONS ACCESS WIDE AREA HIGH SPEED NETWORKS
 10/14/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: D TIPPER
Tech. Officer: GSFC/G ASRAR
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 5 50029 UNIVERSITY OF PITTSBURGH 8215
 VESTIBULAR INFLUENCES ON SYMPATHETIC OUTFLOWS TO D SCULAR BEDS
 09/06/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: B YATES
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50174 UNIVERSITY OF PITTSBURGH 8216
 AN INVESTIGATION OF RAMAN SCATTERING IN SYMBIOTIC STARS (STUDENT - BIRRIEL, J.)
 05/22/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R SCHULTE-LADBECK
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50207 UNIVERSITY OF PITTSBURGH 8217
 TWO-DIMENSIONAL HYDRODYNAMICS IN SOAP FILMS UNDERGOING ELECTROMAGNETIC CONVECTION
 07/09/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: X WU
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 - PHYSICS

NGT 5 50252 UNIVERSITY OF PITTSBURGH 8218
 AUTOMATED LEARNING WITH PROBABILISTIC NETWORKS FOR STUDY & EXPLORATION OF THE UNIVERSE/STUDENT: DENV
 06/08/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: M DRUZDZEL
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50256 UNIVERSITY OF PITTSBURGH 8219
 THE ROLE OF THE CEREBELLUM IN CARDIOVASCULAR RESPONSES TO CHANGES IN GRAVITY STUDENT: MICHAEL HOLME
 07/07/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: B J YATES
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 2160 VILLANOVA UNIVERSITY 8220
 1) THE PAST, PRESENT AND FUTURE SUN: AN INVESTIGATION OF SOLAR PROXIES 2) UV CHROMOSPHERIC ...
 12/31/1992 - 01/31/2000 FY99: \$0 Total: \$43,200
Prin. Invest.: E F GUINAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2279 VILLANOVA UNIVERSITY 8221
 CORONAL SPECTROSCOPY AND OUTER ATMOSPHERIC MODELING OF ZERO-AGE-MAIN-SEQUENCE K DWARFS ...
 07/15/1993 - 10/31/1999 FY99: \$0 Total: \$154,868
Prin. Invest.: C W AMBRUSTER
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 2462 **VILLANOVA UNIVERSITY** **8222**
 IUE OBSERVATIONS OF AN X-RAY ANOMALOUS A-TYPE GIANT
 01/11/1994 - 01/14/1999 FY99: -\$519 Total: \$1,981
Prin. Invest.: J SIAH
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2494 **VILLANOVA UNIVERSITY** **8223**
 EVOLUTION OF SOLAR CORONAL X-RAY EMISSION: ROSAT OBSERVATIONS OF SOLAR PROXIES
 02/03/1994 - 01/14/2000 FY99: \$0 Total: \$39,975
Prin. Invest.: E F GUINAN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2707 **VILLANOVA UNIVERSITY** **8224**
 THE SUN IN TIME: THE HIGH-TEMPERATURE CORONAL STRUCTURE OF SOLAR TYPE STARS
 08/31/1994 - 03/14/2000 FY99: \$0 Total: \$53,191
Prin. Invest.: E GUINAN
Tech. Officer: GSFC/N E WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3136 **VILLANOVA UNIVERSITY** **8225**
 EVOLUTION OF THE CORONAL STRUCTURE OF THE SUN IN TIME
 11/01/1995 - 11/14/1999 FY99: \$0 Total: \$52,646
Prin. Invest.: E F GUINAN
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 3221 **VILLANOVA UNIVERSITY** **8226**
 SPACE SPECTROSCOPY OF THE WHITE DWARFS IN CATAclysmic VARIABLES: PROBES OF ACCRETION PROCESSES
 05/08/1996 - 03/31/1999 FY99: \$0 Total: \$82,200
Prin. Invest.: SION
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3539 **VILLANOVA UNIVERSITY** **8227**
 THE PROPERTIES OF INTERSTELLAR DUST AND APPLICATIONS TO ASTROPHYSICAL PROBLEMS
 11/13/1996 - 03/14/1999 FY99: -\$25,550 Total: \$79,450
Prin. Invest.: U SU FIA
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4520 **VILLANOVA UNIVERSITY** **8228**
 THE SUN IN TIME: ACTIVITY CYCLES OF THE YOUNG AND BETA HYDRI
 07/03/1997 - 06/30/2000 FY99: \$0 Total: \$3,300
Prin. Invest.: E GUINAN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6849 **VILLANOVA UNIVERSITY** **8229**
 ORFEUS IMAPS MISSION SUPPORT
 01/12/1998 - 01/14/1999 FY99: -\$31,299 Total: \$5,261
Prin. Invest.: U SOFIA
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 7113 **VILLANOVA UNIVERSITY** **8230**
 DETERMINING THE PHYSICAL PROPERTIES OF THE MAIN SEQUENCE B STARS
 03/25/1998 - 03/31/2000 FY99: \$22,693 Total: \$44,393
Prin. Invest.: E FITZPATRICK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8388 **VILLANOVA UNIVERSITY** **8231**
 NEW INSIGHTS INTO THE STRUCTURE & EVOLUTION OF CV WHITE DWARFS USING THE IUE NEWSIPS FINAL ARCHIVE
 03/05/1999 - 03/14/2000 FY99: \$40,120 Total: \$40,120
Prin. Invest.: E M SION
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6080 **WEST CHESTER UNIV OF PA** **8232**
 WEST CHESTER UNIVERSITY CONCEPTS & PEDAGOGICAL
 08/27/1997 - 05/14/1999 FY99: \$0 Total: \$19,625
Prin. Invest.: R M BUSCH
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

RHODE ISLAND

NAG 1 1145 **BROWN UNIVERSITY** **8233**
 MULTI-DIMENSIONAL HIGH ORDER ESSENTIALLY NON-OSCILLATORY FINITE DIFFERENCE METHODS IN GEN COORD
 05/23/1990 - 05/31/1998 FY99: -\$1 Total: \$140,500
Prin. Invest.: C W SHU
Tech. Officer: LARCH L ATKINS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1932 **BROWN UNIVERSITY** **8234**
 REGRESSION MODELS AND ALGORITHMS FOR AERODYNAMICS APPLICATIONS
 05/30/1997 - 09/30/1998 FY99: \$0 Total: \$50,001
Prin. Invest.: A E PEARSON
Tech. Officer: LARC/P C MURPHY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2070 **BROWN UNIVERSITY** **8235**
 HI ORDER DISCONTINUOUS GALERKIN METHODS FOR CONVECTION DOMINATED PROBLEMS W/APPLIC TO AEROACOUSTICS
 05/14/1998 - 11/30/1999 FY99: \$15,000 Total: \$30,000
Prin. Invest.: C SHU
Tech. Officer: LARCH L ATKINS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2201 **BROWN UNIVERSITY** **8236**
 REGRESSION MODELS AND ALGORITHMS FOR AERODYNAMICS APPLICATIONS
 06/01/1999 - 10/03/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: A E PEARSON
Tech. Officer: LARC/P C MURPHY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1484 **BROWN UNIVERSITY** **8237**
 MIXING ENHANCEMENT IN HIGH SPEED JET FLOWS THROUGH NONLINEAR
 MULTIPLE-FREQUENCY MODE INTERACTIONS
 05/04/1993 - 07/31/1998 FY99: \$0 Total: \$220,200
Prin. Invest.: J T LIU
Tech. Officer: GRC/M D DAHL
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1927 **BROWN UNIVERSITY** **8238**
 DYNAMICS AND MORPHOLOGY OF SUPERFLUID HELIUM DROPS IN A
 MICROGRAVITY ENVIRONMENT
 07/24/1996 - 07/24/2000 FY99: \$150,000 Total: \$500,000
Prin. Invest.: G M SEIDEL, H MARIS
Tech. Officer: GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1929 **BROWN UNIVERSITY** **8239**
 KINETIC AND THERMODYNAMIC STUDIES OF MELTING-FREEZING OF
 HELIUM MICROGRAVITY
 07/24/1996 - 07/24/2000 FY99: \$82,000 Total: \$272,000
Prin. Invest.: D ELBAUM, J M KOSTERLITZ
Tech. Officer: GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 5 3659 **BROWN UNIVERSITY** **8240**
 PLANETARY GEOPHYSICS AND TECTONICS
 03/07/1997 - 10/31/1999 FY99: \$77,400 Total: \$229,494
Prin. Invest.: E PARMENTIER
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3871 **BROWN UNIVERSITY** **8241**
 REFLECTANCE EXPERIMENT LABORATORY
 02/14/1997 - 09/30/1999 FY99: \$107,154 Total: \$309,039
Prin. Invest.: C M PIETERS
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3872 **BROWN UNIVERSITY** **8242**
 BROWN REGIONAL PLANETARY DATA CENTER
 02/14/1997 - 09/30/1999 FY99: \$49,000 Total: \$168,414
Prin. Invest.: P H SCHULTZ
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3877 **BROWN UNIVERSITY** **8243**
 PLANETARY IMPACT PROCESSES
 02/14/1997 - 09/30/1999 FY99: \$143,000 Total: \$421,402
Prin. Invest.: P H SCHULTZ
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3833 **BROWN UNIVERSITY** **8244**
 GEOLOGICAL MAPPING OF VENUS: ORIGIN OF BASINS AND STRATIGRA-
 PHY
 02/13/1997 - 02/14/2000 FY99: \$40,000 Total: \$118,750
Prin. Invest.: D W HEAD, III
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4162 **BROWN UNIVERSITY** **8245**
 MINERALOGY OF THE MARTIAN SURFACE: CRUSTAL COMPOSI-
 TIONS
 03/26/1997 - 02/28/2000 FY99: \$69,000 Total: \$212,312
Prin. Invest.: D F MUSTARD
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4231 **BROWN UNIVERSITY** **8246**
 DIKE EMPLACEMENT AND HYDROTHERMAL ENVIRONMENTS FOR SITES:
 CANDIDATES FOR RESOURCE REACTION ZONES AND
 04/23/1997 - 03/31/1999 FY99: \$0 Total: \$38,471
Prin. Invest.: D HEAD, III
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4303 **BROWN UNIVERSITY** **8247**
 MINERALOGY OF LUNAR MATERIALS FROM REFLECTANCE SPE
 04/12/1997 - 06/30/1999 FY99: \$22,917 Total: \$110,000
Prin. Invest.: D M PIETERS
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4356 **BROWN UNIVERSITY** **8248**
 OPERATION OF: TERRESTRIAL PLANETARY BODIES SCIENCE
 05/02/1997 - 01/31/1999 FY99: \$0 Total: \$60,000
Prin. Invest.: D W HEAD
Tech. Officer: GSFC/G VARSI
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4366 **BROWN UNIVERSITY** **8249**
 REMOTE SENSING INFO APPLIED TO GEOLOGICAL STUDIES
 04/29/1997 - 12/31/1999 FY99: \$40,000 Total: \$170,000
Prin. Invest.: C M PIETERS
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4438 **BROWN UNIVERSITY** **8250**
 EXPERIMENTAL STUDY OF LUNAR AND SNC MAGMAS: ROLE O
 04/23/1997 - 03/31/2000 FY99: \$62,333 Total: \$132,000
Prin. Invest.: D J RUTHERFORD
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4585 **BROWN UNIVERSITY** **8251**
 TECTONIC DEFORMATION PATTERNS ON VENUS: RELATION LITHO-
 SPHERIC PROCESSES AND EVOLUTION
 05/20/1997 - 09/30/1999 FY99: \$45,000 Total: \$215,000
Prin. Invest.: J W HEAD, III
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4650 **BROWN UNIVERSITY** **8252**
 EVOLUTION AND DEPTHS OF THE HIGH-TI MARE PICRITE G
 06/11/1997 - 04/30/2000 FY99: \$31,000 Total: \$123,754
Prin. Invest.: D C HESS
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4676 BROWN UNIVERSITY 8253
 MARS 94 PARTICIPATING SCIENTIST AND CO-INVESTIGATOR
 06/05/1997 - 06/30/1998 FY99: \$0 Total: \$50,000
Prin. Invest.: D W HEAD, III
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4723 BROWN UNIVERSITY 8254
 PLANETARY VOLCANIC PROCESSES: SHALLOW MAGMA RESER
 DIVERSITY OF ERUPTION CONDITIONS
 06/11/1997 - 09/30/1999 FY99: \$70,000 Total: \$250,000
Prin. Invest.: J W HEAD, III
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 5133 BROWN UNIVERSITY 8255
 A HIGH RESOLUTION X-RAY DETECTOR USING MAGNETIC BOLOMETERS
 03/12/1997 - 03/13/2000 FY99: \$125,000 Total: \$375,000
Prin. Invest.: G SEIDEL
Tech. Officer: GSFC/B FLOWERS
CASE Category: 13 - PHYSICS

NAG 5 6003 BROWN UNIVERSITY 8256
 THE DYNAMICS OF A SEMI-ARID REGION IN RESPONSE TO POLICY
 08/26/1997 - 12/31/1999 FY99: \$0 Total: \$315,000
Prin. Invest.: J MUSTART
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6144 BROWN UNIVERSITY 8257
 MARS OBSERVER LASER ALTIMETER (MOLA) PARTICIPATION
 08/19/1997 - 12/31/2000 FY99: \$172,500 Total: \$382,500
Prin. Invest.: J W HEAD
Tech. Officer: GSFC/D E SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6597 BROWN UNIVERSITY 8258
 A COMPUTER LEARNING CENTER FOR REMOTE SENSING AND GIS
 12/11/1997 - 10/31/1999 FY99: \$0 Total: \$154,000
Prin. Invest.: J MUSTARD
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7082 BROWN UNIVERSITY 8259
 AN ULTRASPECTROMETER (MEMUS) FOR PLANETARY SURFACE ANALY-
 SIS
 03/10/1998 - 03/31/2000 FY99: \$217,367 Total: \$312,070
Prin. Invest.: P H SCHULTZ
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 7866 BROWN UNIVERSITY 8260
 DIAPYCNISM AND SOLID-STATE CONVECTION ON EUROPA
 01/12/1999 - 12/31/1999 FY99: \$40,000 Total: \$40,000
Prin. Invest.: D T PAPPALARDO
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7998 BROWN UNIVERSITY 8261
 DISCOVERY MISSION SELECTION, ALADDIN AO98-OSS-04PHOBOS-DEI-
 MOS EXPLORATION AN
 01/05/1999 - 06/30/1999 FY99: \$35,000 Total: \$35,000
Prin. Invest.: D PIETERS
Tech. Officer: GSFC/M NOLAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8046 BROWN UNIVERSITY 8262
 ORIGIN, STRUCTURE, AND EVOLUTION OF GROOVED TERRAIN ON GANY-
 MEDE AND COMPARISON TO EUROPA
 01/15/1999 - 01/14/2000 FY99: \$62,114 Total: \$62,114
Prin. Invest.: D T PAPPALARDO
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8144 BROWN UNIVERSITY 8263
 CRYOMAGMATISM ON GANYMEDE AND EUROPA: PRINCIPLES OF
 EMPLACEMENT AND ERUPTION AND COMPARISON TO O
 02/01/1999 - 09/30/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: D W HEAD, III
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8174 BROWN UNIVERSITY 8264
 KINETICS OF MELTING AND DISSOLUTION IN LUNAR MATERIALS
 02/04/1999 - 04/30/2000 FY99: \$63,000 Total: \$63,000
Prin. Invest.: D C HESS
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8181 BROWN UNIVERSITY 8265
 EXPERIMENTS AND SPECTRAL STUDIES OF MARTIAN VOLCANIC ROCKS:
 IMPLICATIONS FOR THE ORIGIN OF PATHFINDER
 02/16/1999 - 03/31/2000 FY99: \$56,300 Total: \$56,300
Prin. Invest.: M J RUTHERFORD
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8283 BROWN UNIVERSITY 8266
 NORTHERN LOWLANDS OF MARS: TESTS FOR THE PRESENCE OF LAKES,
 SEAS AND OCEANS IN THE PAST HISTORY O
 02/19/1999 - 02/29/2000 FY99: \$79,400 Total: \$79,400
Prin. Invest.: J W HEAD
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8302 BROWN UNIVERSITY 8267
 MINERALOGY OF LUNAR MATERIALS FROM REFLECTANCE SPECTROSCOPY
 03/05/1999 - 03/31/2000 FY99: \$55,000 Total: \$55,000
Prin. Invest.: D M PIETERS
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG13 39 BROWN UNIVERSITY 8268
 RHODE ISLAND'S NARRAGANSETT BAY FROM SPACE: A PERSPECTIVE
 FOR THE 21ST CENTURY
 08/01/1996 - 09/15/2000 FY99: \$100,000 Total: \$511,684
Prin. Invest.: D MUSTARD
Tech. Officer: JSC/B DAVIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC13 98005 **BROWN UNIVERSITY** **8269**
 BROWN UNIVERSITY AFFILIATED RESEARCH CENTER FOR THE NORTH-EAST
 09/15/1998 - 12/31/2001 FY99: \$150,000 Total: \$200,000
Prin. Invest.: J F MUSTARD
Tech. Officer: SSC/H CARR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 91 **BROWN UNIVERSITY** **8270**
 SWITCHABLE/TUNABLE INTERFERENCE FILTERS FOR REMOTE SENSING APPLICATIONS STUDENT: ADAM FONTECCHIO
 06/10/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: G CRAWFORD
Tech. Officer: GSFC/G A SOFFEN
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 50108 **BROWN UNIVERSITY** **8271**
 MORPHOLOGY-DEPENDENT RESONANCE TECHNIQUES FOR THE ED SUPERFLUID HELIUM DROPLETS
 09/06/1997 - 06/30/1998 FY99: -\$133 Total: \$21,867
Prin. Invest.: SEIDEL
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50166 **BROWN UNIVERSITY** **8272**
 EFFECTS OF HIGH STRAIN-RATE DEFORMATION ON IMPACT MELT GENERATION
 06/04/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: P H SCHULTZ
Tech. Officer: GSFC/L SMITH
CASE Category: 11 - ASTRONOMY

NGT 5 90014 **BROWN UNIVERSITY** **8273**
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.
 02/03/1997 - 02/29/2000 FY99: \$247,500 Total: \$630,000
Prin. Invest.: P H SCHULTZ
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1757 **UNIVERSITY OF RHODE ISLAND** **8274**
 THE DISTRIBUTION OF HYDROGEN PEROXIDE, METHYLHYDROPEROXIDE, AND FORMALDEHYDE AND THEIR RELATION-
 09/21/1995 - 03/31/1999 FY99: \$0 Total: \$475,969
Prin. Invest.: D HEIKES
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1108 **UNIVERSITY OF RHODE ISLAND** **8275**
 HYDROGEN PEROXIDE, METHYLHYDROPEROXIDE, & FORMALDEHYDE MEASUREMENTS DURING SONEX, RELATIONSHIP TO..
 01/29/1997 - 12/31/1998 FY99: \$0 Total: \$265,412
Prin. Invest.: B HEIKES
Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1998 **UNIVERSITY OF RHODE ISLAND** **8276**
 CERAMIC THIN FILM STRAIN SENSORS FOR USE AT HIGH TEMPERATURES
 12/03/1996 - 05/31/1999 FY99: \$0 Total: \$120,000
Prin. Invest.: O J GREGORY
Tech. Officer: GRC/L C MARTIN, GRC/W D WILLIAMS
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2129 **UNIVERSITY OF RHODE ISLAND** **8277**
 INVESTIGATION OF FLUID PHYSICS NEAR DYNAMIC CONTACT LINE-NUMERICAL SIMULATIONS AND EXPERIMENTS
 02/23/1998 - 12/31/1998 FY99: \$0 Total: \$10,000
Prin. Invest.: A BOSE
Tech. Officer: GRC/M M WEISLOGEL, GRC/B SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 3 2208 **UNIVERSITY OF RHODE ISLAND** **8278**
 CERAMIC BASED STRAIN SENSORS FOR USE AT HIGH TEMPERATURE
 11/17/1998 - 05/06/2000 FY99: \$60,000 Total: \$60,000
Prin. Invest.: O GREGORY
Tech. Officer: GRC/J LEI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2229 **UNIVERSITY OF RHODE ISLAND** **8279**
 NUMERICAL SIMULATIONS FOR THE DESIGN OF TERRESTRIAL AND MICROGRAVITY WETTING MICROHYDRODYNAMICS EXP
 03/09/1999 - 03/01/2000 FY99: \$15,444 Total: \$15,444
Prin. Invest.: A BOSE
Tech. Officer: GRC/D A JACQUIN
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 3736 **UNIVERSITY OF RHODE ISLAND** **8280**
 SURVEY OF OCEAN FRONTS WITH SST, ALTIMETER AND IN
 03/06/1997 - 09/30/1999 FY99: \$217,478 Total: \$343,478
Prin. Invest.: P CORNILLON
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 33 - OCEANOGRAPHY

NAG 5 3895 **UNIVERSITY OF RHODE ISLAND** **8281**
 MIDDLE SCHOOL TEACHER INSTITUTE ON GLOBAL CHANGE I OF A 2 YEAR GRANT REF: HQ GRANT NAGW 4632
 02/11/1997 - 06/30/1998 FY99: -\$1,557 Total: \$68,739
Prin. Invest.: L CARTER
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6077 **UNIVERSITY OF RHODE ISLAND** **8282**
 PRODUCTION OF WESTERN NORTH ATLANTIC FULL RESOLUTION SST FIELDS FROM THE AVHRR SENSOR
 10/24/1997 - 12/31/1999 FY99: \$90,000 Total: \$214,000
Prin. Invest.: D CORNILLON
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6320 **UNIVERSITY OF RHODE ISLAND** **8283**
 PRODUCTION OF WESTERN NORTH ATLANTIC FULL RESOLUTION THE AVHRR SENSOR
 09/11/1997 - 05/31/2000 FY99: \$0 Total: \$100,000
Prin. Invest.: P CORNILLON
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6560 UNIVERSITY OF RHODE ISLAND 8284
 DETERMINATION OF OCEAN COLOR PROVINCES IN THE NORTH ATLANTIC
 10/27/1997 - 10/31/2000 FY99: \$30,000 Total: \$225,082
Prin. Invest.: P STEGMANN
Tech. Officer: GSFC/J YODER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6607 UNIVERSITY OF RHODE ISLAND 8285
 PREPARING STUDENTS, PRACTITIONERS AND RESEARCHERS FOR OCEAN
 REMOTE SENSING IN THE TWENTY-FIRST CENTURY
 12/03/1997 - 11/30/1999 FY99: \$0 Total: \$190,000
Prin. Invest.: P CORNILLION
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6645 UNIVERSITY OF RHODE ISLAND 8286
 SATELLITE STUDIES OF PHYTOPLANKTON DYNAMICS AND PRODUCTIVITY
 IN THE GLOBAL OCEAN AND IN OCEAN MODELS
 12/01/1997 - 10/14/1999 FY99: \$187,248 Total: \$366,627
Prin. Invest.: J A YODER
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8739 UNIVERSITY OF RHODE ISLAND 8287
 INVESTIGATION OF AERODYNAMIC AND RADOMETRIC LAND SURFACE
 TEMPERATURES
 08/19/1999 - 08/14/2000 FY99: \$9,992 Total: \$9,992
Prin. Invest.: Y WANG
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8829 UNIVERSITY OF RHODE ISLAND 8288
 MULTIPLE INNOVATIVE MODELS IN REGIONAL LAND COVER CHANGE
 STUDIES
 09/08/1999 - 09/30/2000 FY99: \$93,182 Total: \$93,182
Prin. Invest.: Y WANG
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3601 UNIVERSITY OF RHODE ISLAND 8289
 REMOTE SENSING OF MINERAL AEROSOLS AND THEIR IMPACT ON PHY-
 TOPLANKTON PRODUCTION
 05/21/1993 - 05/01/1998 FY99: \$0 Total: \$249,603
Prin. Invest.: P STEGMAN, N TINDALE
Tech. Officer: HQ/R E MURPHY
CASE Category: 33 - OCEANOGRAPHY

NAGW 4632 UNIVERSITY OF RHODE ISLAND 8290
 MIDDLE SCHOOL TEACHER INSTITUTE ON GLOBAL CHANGE ISSUES
 07/27/1995 - 06/30/1998 FY99: -\$30 Total: \$79,673
Prin. Invest.: L M CARTER
Tech. Officer: HQ/M A PINE, HQ/D R NORTON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 1 302 UNIVERSITY OF RHODE ISLAND 8291
 HYDROGEN PEROXIDE, METHYLDROPEROXIDE & FORMALDEHYDE —THEIR
 RELATIONSHIP TO TROPOSPHERIC OXIDANT CHEMISTRY
 07/14/1998 - 06/30/2000 FY99: \$127,352 Total: \$309,006
Prin. Invest.: B HEIKES
Tech. Officer: LARC/J L RAPER, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 307 UNIVERSITY OF RHODE ISLAND 8292
 THE DISTRIBUTED OCEANOGRAPHIC DATA SYSTEM (DODS): A FRAME-
 WORK FOR ACCESS TO SCIENTIFIC DATA IN THE EO
 04/27/1998 - 02/28/2001 FY99: \$796,900 Total: \$1,289,200
Prin. Invest.: P CORNILLION
Tech. Officer: GSFC/M MAIDEN
CASE Category: 33 - OCEANOGRAPHY

NGT 5 30088 UNIVERSITY OF RHODE ISLAND 8293
 COMPARATIVE OCEANIC PHYTOPLANKTON ECOLOGY USING T
 BASE/EARTH SYSTEM SCIENCE FELLOWSHIP PROGRAM/CHA
 09/09/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: J YODER
Tech. Officer: GSFC/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

SOUTH CAROLINA

NAG 2 1164 BENEDICT COLLEGE 8294
 IDENTIFICATION & ISOLATION OF MICROGRAVITY RESPONSIVE CDNA'S
 10/06/1997 - 08/31/1999 FY99: \$98,200 Total: \$197,856
Prin. Invest.: L LOWE
Tech. Officer: ARC/R E GRINDELAND, ARC/G S LEE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 1 1634 CLEMSON UNIVERSITY - CLEMSON 8295
 LASER RADAR SENSOR DEVELOPMENT SIGNAL PROCESSING STUDIES
 06/30/1994 - 07/20/1998 FY99: -\$10 Total: \$268,047
Prin. Invest.: E G BAXA
Tech. Officer: LARC/L D STATON
CASE Category: 45 - ELECTRICAL ENGR

NAG 2 1107 CLEMSON UNIVERSITY - CLEMSON 8296
 A LINUX WORKSTATION FOR HIGH-PERFORMANCE GRAPHICS: TASK I
 01/23/1997 - 02/14/2000 FY99: \$39,913 Total: \$148,056
Prin. Invest.: R M GEIST, J M WESTALL
Tech. Officer: ARC/J R LEKASHMAN
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2046 CLEMSON UNIVERSITY - CLEMSON 8297
 THE COMPONENT PACKAGING PROBLEM, A VEHICLE FOR THE DEVELOP-
 MENT OF MULTIDISCIPLINARY DESIGN & ANALYSIS
 05/08/1997 - 12/15/1998 FY99: -\$4,469 Total: \$195,531
Prin. Invest.: G FADEL
Tech. Officer: GRC/C C CHAMIS, GRC/P N MURTHY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2214 CLEMSON UNIVERSITY - CLEMSON 8298
 THERMAL CONTROL AND ENHANCEMENT OF HEAT CAPACITY OF CRYO-
 GENIC CAPILLARY PUMPED LOOP AND HEAT PIPE W
 01/22/1999 - 11/01/2002 FY99: \$26,076 Total: \$26,076
Prin. Invest.: D M OCHTERBECK
Tech. Officer: GRC/F P CHIARAMONTE
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 2419 CLEMSON UNIVERSITY - CLEMSON 8299
 SOLAR MAXIMUM MISSION OBSERVATIONS OF GAMMA-RAY TRANSIENTS
 AND THE DIFFUSE GAMMA
 11/06/1993 - 08/31/1998 FY99: \$0 Total: \$116,282
Prin. Invest.: M LEISING
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3699 CLEMSON UNIVERSITY - CLEMSON 8300
 ANALYSIS OF COMPTEL AND OSSE OBSERVATIONS OF SUPER
 01/24/1997 - 01/31/2000 FY99: \$0 Total: \$52,297
Prin. Invest.: M D LEISING
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3835 CLEMSON UNIVERSITY - CLEMSON 8301
 TRIO: AN OUT-OF-CORE PROGRAMMING ENVIRONMENT FOR T
 02/10/1997 - 02/14/2000 FY99: \$59,998 Total: \$191,676
Prin. Invest.: W E LIGON, III
Tech. Officer: GSFC/C MOBARRY
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4329 CLEMSON UNIVERSITY - CLEMSON 8302
 ISOTOPIC ANOMALIES, EXTINGUISHED RADIOACTIVITY, AND CHE SOLIDS
 04/07/1997 - 04/14/2000 FY99: \$22,000 Total: \$96,000
Prin. Invest.: D D CLAYTON
Tech. Officer: GSFC/D F NAVA
CASE Category: 12 - CHEMISTRY

NAG 5 4340 CLEMSON UNIVERSITY - CLEMSON 8303
 NUCLEAR CLUES TO SOLAR SYSTEM ORIGIN
 04/12/1997 - 03/31/1999 FY99: \$11,250 Total: \$90,000
Prin. Invest.: P D CLAYTON
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4703 CLEMSON UNIVERSITY - CLEMSON 8304
 THE HISTORY OF THE NUCLEI COMPRISING PLANETARY MAT
 06/11/1997 - 05/31/2000 FY99: \$55,222 Total: \$102,074
Prin. Invest.: D S MEYER
Tech. Officer: GSFC/D F NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 5034 CLEMSON UNIVERSITY - CLEMSON 8305
 SOUNDING ROCKET INVESTIGATIONS OF EDDY & MOLECULAR DIFFUSIVI-
 TIES IN THE MESOSPHERE/LOWER THERMOSPHERE
 04/12/1995 - 03/31/1999 FY99: \$0 Total: \$287,000
Prin. Invest.: M F LARSEN
Tech. Officer: GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5085 CLEMSON UNIVERSITY - CLEMSON 8306
 ROCKET/RADAR INVESTIGATION OF LOWER IONOSPHERE ELECTRODY-
 NAMICS ASSOCIATED WITH INTENSE MID-LATITU
 06/28/1996 - 02/29/2000 FY99: \$37,500 Total: \$133,400
Prin. Invest.: M F LARSEN
Tech. Officer: GSFC/L W GURKIN
CASE Category: 13 - PHYSICS

NAG 5 5186 CLEMSON UNIVERSITY - CLEMSON 8307
 COUPLING OF DYNAMICS IN AURORA FUNDING FOR FIRST YEAR OF
 GRANT
 03/30/1998 - 12/31/1999 FY99: \$70,603 Total: \$204,763
Prin. Invest.: M F LARSEN
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5242 CLEMSON UNIVERSITY - CLEMSON 8308
 A SOUNDING ROCKET INVESTIGATION OF THE FINE STRUCTURE IN THE
 MESOPAUSE REGION
 03/16/1999 - 02/28/2002 FY99: \$116,100 Total: \$116,100
Prin. Invest.: M F LARSEN
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6030 CLEMSON UNIVERSITY - CLEMSON 8309
 AN APPLICATION DEVELOPMENT FRAMEWORK FOR RECONFIGURABLE
 COMPUTING SYSTEMS
 10/02/1997 - 09/30/1998 FY99: \$0 Total: \$99,990
Prin. Invest.: W B LIGON, III
Tech. Officer: GSFC/N SPECIALE
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6210 CLEMSON UNIVERSITY - CLEMSON 8310
 RECONFIGURABLE COMPUTING SYSTEMS FOR REGIONAL VALIDATION
 APPLICATIONS, CONTROL NUMBER GSFC5-3265
 08/06/1997 - 06/30/2000 FY99: \$49,924 Total: \$199,848
Prin. Invest.: D LIGON, III
Tech. Officer: GSFC/W CAMPBELL
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6892 CLEMSON UNIVERSITY - CLEMSON 8311
 GALACTIC RADIOACTIVE 44Ti MAP AND SUPERNOVA RATE
 01/28/1998 - 01/31/1999 FY99: \$0 Total: \$20,000
Prin. Invest.: L THE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7488 CLEMSON UNIVERSITY - CLEMSON 8312
 REANALYZING 1809 KEV COMPTEL DATA IMPROVING ITS SENSITIVITY TO
 EXTENDED EMISSION
 06/17/1998 - 06/30/1999 FY99: \$0 Total: \$2,800
Prin. Invest.: D HARTMANN
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7570 CLEMSON UNIVERSITY - CLEMSON 8313
 COMPTEL AND OSSE OBSERVATIONS OF NEARBY SUPERNOVAE :
 1994-1999
 07/15/1998 - 07/31/1999 FY99: \$0 Total: \$19,999
Prin. Invest.: M D LEISING
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7592 CLEMSON UNIVERSITY - CLEMSON 8314
 INVESTIGATING THE FEASIBILITY OF, AND LIMITATIONS ASSOCIATED WITH,
 RECOVERING GRAVITYWAVE PARAMETER
 07/07/1998 - 06/30/2000 FY99: \$79,462 Total: \$158,676
Prin. Invest.: M P HICKEY
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 7782 CLEMSON UNIVERSITY - CLEMSON 8315
 PHYSICAL VARIATIONS IN THE RAINDROP SIZE DISTRIBUTION & THEIR
 EFFECTS ON THE QUANTITATIVE ESTIMATION
 11/13/1998 - 11/14/1999 FY99: \$59,910 Total: \$59,910
Prin. Invest.: C W ULBRICH
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7831 CLEMSON UNIVERSITY - CLEMSON 8316
 MEASURING THE T144 MASS IN CAS A WITH OSSE
 11/27/1998 - 11/30/1999 FY99: \$15,000 Total: \$15,000
Prin. Invest.: L THE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8075 CLEMSON UNIVERSITY - CLEMSON 8317
 OSSE OBSERVATIONS OF 44T1 IN SNR G266.2-1.2
 01/15/1999 - 01/14/2000 FY99: \$11,200 Total: \$11,200
Prin. Invest.: M D LEISING
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 8304 CLEMSON UNIVERSITY - CLEMSON 8318
 PRESOLAR DUST GRAINS IN METEORITES: ORIGIN AND MEANING
 02/25/1999 - 04/14/2000 FY99: \$55,000 Total: \$55,000
Prin. Invest.: D CLAYTON
Tech. Officer: GSFC/J BOYCE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8448 CLEMSON UNIVERSITY - CLEMSON 8319
 RELATING SOLAR BIRTH TO THE GALAXY
 04/07/1999 - 03/31/2000 FY99: \$45,000 Total: \$45,000
Prin. Invest.: D D CLAYTON
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8605 CLEMSON UNIVERSITY - CLEMSON 8320
 A PROBLEM SOLVING ENVIRONMENT FOR SCALABLE REMOTE SENSING
 APPLICATIONS
 06/24/1999 - 12/31/1999 FY99: \$50,000 Total: \$50,000
Prin. Invest.: W LIGON
Tech. Officer: GSFC/K MOE
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 8759 CLEMSON UNIVERSITY - CLEMSON 8321
 MANIPULATION AND CONTACT SENSING VIA TRUNKS, TENTACLES, AND
 WHISKERS
 08/26/1999 - 08/31/2000 FY99: \$32,982 Total: \$32,982
Prin. Invest.: I D WALKER
Tech. Officer: GSFC/R CROUCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8763 CLEMSON UNIVERSITY - CLEMSON 8322
 DESIGN OF SPECIFIC MISSION FOR RADIATION PHYSICS RESEARCH
 09/03/1999 - 01/14/2000 FY99: \$26,250 Total: \$26,250
Prin. Invest.: P J MCNULTY
Tech. Officer: GSFC/H C SHAW
CASE Category: 13 - PHYSICS

NAGW 4546 CLEMSON UNIVERSITY - CLEMSON 8323
 ANALYSIS OF EQUATORIAL IONOSPHERIC TURBULENCE USING DE AND SAN
 MARCO DATA
 06/30/1995 - 09/30/1997 FY99: -\$5 Total: \$101,525
Prin. Invest.: D L HYSELL
Tech. Officer: HQ/J BOHLIN
CASE Category: 13 - PHYSICS

NCC 1 283 CLEMSON UNIVERSITY - CLEMSON 8324
 MODELING & CHARACTERIZATION OF GEOMETRIC EFFECTS ON THE PER-
 FORMANCE OF RAINBOW CERAMICS
 03/25/1998 - 08/31/1999 FY99: \$22,122 Total: \$62,122
Prin. Invest.: R W SCHWARTZ, I BALLATO, E SKAAR
Tech. Officer: LARC/S A WISE
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 1114 CLEMSON UNIVERSITY - CLEMSON 8325
 VIRTUAL REALITY TECHNOLOGY FOR AIRCRAFT VISUAL INSPECTION:
 TRAINING & JOB AIDING
 04/23/1999 - 12/31/1999 FY99: \$54,860 Total: \$54,860
Prin. Invest.: A K GRAMOPADHYE
Tech. Officer: ARC/B G KANKI, ARC/M M CONNORS
CASE Category: 49 - ENGINEERING, OTHER

NGT 1 52179 CLEMSON UNIVERSITY - CLEMSON 8326
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/12/1997 - 09/11/1998 FY99: -\$1 Total: \$22,000
Prin. Invest.: K A CUNEFARE, W M JOHNSON
Tech. Officer: LARC/R J SILCOX, LARC/J H ROBINSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 21 CLEMSON UNIVERSITY - CLEMSON 8327
 IMPROVING HIGH PERFORMANCE I/O IN COMPUTATIONAL DATA PROC-
 ESSING SYSTEMS
 07/15/1996 - 06/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: W B LIGON, III
Tech. Officer: GSFC/G A SOFFEN, GSFC/N SHORT
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 78 CLEMSON UNIVERSITY - CLEMSON 8328
 IMPROVING HIGH PERFORMANCE I/O IN COMPUTATIONAL DATA PROC-
 ESSING SYSTEMS PREVIOUS AWARD WAS ON NGT5-
 04/15/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: LIGON, II
Tech. Officer: GSFC/G A SOFFEN
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 85 CLEMSON UNIVERSITY - CLEMSON 8329
 COTS CUSTOM HARDWARE: THE RECONFIGURABLE APPROACH TO CLUS-
 TER BASED PARALLEL: STUDENT/KEITH UNDERWOOD
 05/20/1999 - 08/14/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: W LIGON
Tech. Officer: GSFC/G A SOFFEN
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 90037 CLEMSON UNIVERSITY - CLEMSON 8330
 UNDERGRADUATE STUDENTS AWARDS FOR RESEARCH (USAR)
 01/30/1997 - 12/31/1998 FY99: -\$1,989 Total: \$52,011
Prin. Invest.: S LASSER
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

SOUTH CAROLINA

NASA'S UNIVERSITY PROGRAM

NGT 8 52858 CLEMSON UNIVERSITY - CLEMSON 8331
 ROBUST SPEECH RECOGNITION SCHEME USING PARALLEL MODEL COM-
 BINATION WITH AN ADAPTIVE HYBRID
 07/23/1998 - 08/14/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J N GOWDY
Tech. Officer: MSFC/J F DOWDY
CASE Category: 45 - ELECTRICAL ENGR

NGT10 52611 CLEMSON UNIVERSITY - CLEMSON 8332
 GRADUATE STUDENT RESEARCH GRANT
 09/01/1997 - 07/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: D DAWSON
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 45 - ELECTRICAL ENGR

NAG 8 1260 COASTAL CAROLINA UNIVERSITY 8333
 JOVE RESEARCH PHASE II
 01/17/1997 - 08/31/1999 FY99: \$0 Total: \$82,000
Prin. Invest.: C GILLMAN, D
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4198 COLLEGE OF CHARLESTON 8334
 EXPLORING THE SOLAR SYSTEM IN THE CLASSROOM: A HAN
 03/17/1997 - 07/31/1999 FY99: \$0 Total: \$8,000
Prin. Invest.: D R COOMBS
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7183 COLLEGE OF CHARLESTON 8335
 EXPLORING THE SOLAR SYSTEM IN THE CLASSROOM
 03/16/1998 - 03/14/2001 FY99: \$16,000 Total: \$32,000
Prin. Invest.: C R COOMBS
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAGW 4467 COLLEGE OF CHARLESTON 8336
 EXPLORING THE SOLAR SYSTEM IN THE CLASSROOM: A HANDS ON
 APPROACH
 05/12/1995 - 09/30/1997 FY99: \$0 Total: \$16,000
Prin. Invest.: C COOMBS
Tech. Officer: HQ/H BRINTON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 263 COLLEGE OF CHARLESTON 8337
 SOUTHEASTERN OSS-SPACE GRANT REGIONAL EDUCATION CO ALITION:
 KEYS TO IMPLEMENTING NASA'S OSS EDUCATIO
 01/12/1998 - 01/14/2000 FY99: \$250,000 Total: \$500,000
Prin. Invest.: M COLGAN
Tech. Officer: GSFC/J ROSENDAHL
CASE Category: 11 - ASTRONOMY

NCC 5 413 COLLEGE OF CHARLESTON 8338
 EPSCOR PREPARATION PROGRAM
 06/18/1999 - 06/14/2000 FY99: \$225,000 Total: \$225,000
Prin. Invest.: M COLGAN
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40055 COLLEGE OF CHARLESTON 8339
 SOUTH CAROLINA SPACE GRANT CONSORTIUM
 08/13/1993 - 02/28/1998 FY99: \$0 Total: \$768,405
Prin. Invest.: M W COLGAN
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40050 COLLEGE OF CHARLESTON 8340
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 02/03/1997 - 02/29/2000 FY99: \$262,162 Total: \$816,426
Prin. Invest.: M COLGAN
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40052 COLLEGE OF CHARLESTON 8341
 SOUTH CAROLINA SPACE GRANT CONSORTIUM-NATIONAL SPACE FEL-
 LOWSHIP PROGRAM
 02/07/1997 - 11/14/1998 FY99: \$0 Total: \$13,797
Prin. Invest.: M COLGAN
Tech. Officer: GSFC/L OSTENDORF
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1101 FURMAN UNIVERSITY 8342
 JOVE
 10/19/1994 - 05/31/1998 FY99: -\$7,548 Total: \$114,452
Prin. Invest.: K C ABERNETHY, H S PORTER, JR.
Tech. Officer: MSFC/F SIX
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 2 1085 FURMAN UNIVERSITY 8343
 PROSPECTIVE REMEMBERING UNDER COMPLEX, DEMANDING & FLUID
 CONDITIONS
 01/27/1999 - 10/31/1999 FY99: \$99,976 Total: \$99,976
Prin. Invest.: G O EINSTEIN, M A MCDANIEL
Tech. Officer: ARC/R K DISMUKES
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1385 MEDICAL UNIVERSITY OF SOUTH CAROLINA 8344
 RESEARCH "GASTRIC MUCOSAL CELL CULTURE IN SIMULATED
 MICROGRAVITY
 06/17/1997 - 12/30/2000 FY99: \$161,616 Total: \$357,117
Prin. Invest.: A J SMOLKA
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
CASE Category: 56 - MEDICL

NAG 5 4252 SOUTH CAROLINA STATE UNIVERSITY 8345
 SHARE WITH A PAIR OF PEERS PROJECT (SWAPOP)
 04/07/1997 - 08/14/1998 FY99: \$0 Total: \$371,089
Prin. Invest.: J FULLER
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8246 SOUTH CAROLINA STATE UNIVERSITY 8346
 SHARE WITH A PAIR OF PEERS (SWAPOP II)
 02/19/1999 - 02/29/2000 FY99: \$191,383 Total: \$191,383
Prin. Invest.: J W FULLER, 111
Tech. Officer: GSFC/D MENCHAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NASA'S UNIVERSITY PROGRAM

SOUTH DAKOTA

NAGW 4618 SOUTH CAROLINA STATE UNIVERSITY 8347
 SHARE WITH A PAIR OF PEERS - SWAPOP PROJECT
 07/21/1995 - 08/14/1998 FY99: \$0 Total: \$184,227
Prin. Invest.: J W FULLER
Tech. Officer: HQ/B L WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 116 SOUTH CAROLINA STATE UNIVERSITY 8348
 CENTER FOR NETWORK RESOURCES AND TRAINING AT SOUTH CAROLINA
 STATE UNIVERSITY
 08/15/1995 - 08/14/2000 FY99: \$650,000 Total: \$2,648,000
Prin. Invest.: D K WALTER
Tech. Officer: GSFC/J BENNETT
CASE Category: 22 - COMPUTER SCIENCE

NAG 1 2108 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8349
 A FUNDAMENTAL STUDY OF MATERIAL FLOW IN FRICTION STIR WELDS
 09/08/1998 - 07/31/2001 FY99: \$21,200 Total: \$29,200
Prin. Invest.: A P REYNOLDS
Tech. Officer: LARC/R A HAFLEY
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 2237 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8350
 DEV OF A NOVEL METH FOR DETERMINATION OF RESIDUAL STRESSES IN
 A FRICTION STIR WELD - NRA-99-LARC-1
 09/21/1999 - 07/31/2000 FY99: \$50,693 Total: \$50,693
Prin. Invest.: A P REYNOLDS
Tech. Officer: LARC/R S PLASCIK, LARC/J C NEWMAN, JR.
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 4442 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8351
 ION MICROPROBE STUDY OF PRIMOCRYSTS IN LUNAR CUMUL
 04/23/1997 - 05/31/1999 FY99: \$0 Total: \$30,000
Prin. Invest.: D W SHERVAIS
Tech. Officer: HQ/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8524 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8352
 PARENT MAGMAS & PETROLOGIC PROCESSES IN THE LUNAR HIGHLANDS
 05/13/1999 - 05/31/2000 FY99: \$15,000 Total: \$15,000
Prin. Invest.: J W SHERVAIS
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8837 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8353
 STUDY OF LAND-ATMOSPHERE INTERACTIONS USING SATELLITE DATA
 ASSIMILATION
 09/22/1999 - 09/30/2000 FY99: \$84,250 Total: \$84,250
Prin. Invest.: V LAKSHIMI
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3637 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8354
 BASALTIC VOLCANISM AND ANCIENT PLANETARY CRUSTS
 06/04/1993 - 09/30/1997 FY99: -\$1 Total: \$81,810
Prin. Invest.: J SHERVAIS
Tech. Officer: HQ/J BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG13 27 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8355
 A NASA VISITING INVESTIGATOR PROGRAM
 09/02/1993 - 12/31/1999 FY99: \$158,672 Total: \$822,424
Prin. Invest.: D C COWEN, D C COWEN
Tech. Officer: JSC/R MCKELLIP
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 174 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8356
 EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESE
 12/16/1996 - 03/31/2000 FY99: \$500,000 Total: \$1,499,009
Prin. Invest.: J D ODOM
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 1 52128 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8357
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/23/1996 - 06/30/1999 FY99: \$12,001 Total: \$66,001
Prin. Invest.: M A SUTTON
Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU
CASE Category: 41 - AERONAUTICAL ENGR

NGT13 52712 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8358
 NASA GRADUATE STUDENT PROGRAM-LEWIS HYPERSPECTRAL CHAR-
 ACTERIZATION OF HAZARDOUS WASTE SITE CLAY CAPS
 07/22/1997 - 07/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: J JENSEN
Tech. Officer: JSC/A JOYCE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1931 VOORHEES COLLEGE 8359
 ESTABLISHING VOORHEES COLLEGE GEOGRAPHIC INFORMATION SYS-
 TEM (GIS) CENTER FOR RESEARCH, EDUCATION, AND
 05/23/1997 - 05/31/1999 FY99: \$90,000 Total: \$360,000
Prin. Invest.: J QIN
Tech. Officer: LARC/W BALL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1310 WOFFORD COLLEGE 8360
 JOVE RESEARCH
 01/21/1997 - 08/31/2000 FY99: \$0 Total: \$35,770
Prin. Invest.: D M SCOTT
Tech. Officer: MSFC/J F DOWDY
CASE Category: 49 - ENGINEERING, OTHER

SOUTH DAKOTA

NAG 5 6299 AUGUSTANA COLLEGE 8361
 AUGUSTANA COLLEGE, EARTH SYSTEM SCIENCE, CURRICULU
 09/19/1997 - 08/31/2000 FY99: \$18,233 Total: \$57,217
Prin. Invest.: V K OLNESS
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7548 OGLALA LAKOTA COLLEGE 8362
 OGLALA LAKOTA COLLEGE PACE/MSET
 07/01/1998 - 06/30/2000 FY99: \$100,000 Total: \$200,000
Prin. Invest.: J HAAS
Tech. Officer: GSFC/T GULL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

TENNESSEE
NASA'S UNIVERSITY PROGRAM

NAG 9 967 OGLALA LAKOTA COLLEGE 8363
 SMATH-STUDENT MATH & HEALTH SCIENCES INITIATIVE
 09/24/1997 - 09/30/1999 FY99: \$100,000 Total: \$240,000
Prin. Invest.: D J DEMAREST
Tech. Officer: JSC/L ARMENDARIZ
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 3 1680 SOUTH DAKOTA SCHOOL OF MINES & TECH 8364
 STUDY OF SOLID STATE SURFACE FOR ELECTRON EMISSION APPLICATIONS
 12/05/1994 - 01/15/2000 FY99: \$0 Total: \$50,708
Prin. Invest.: A PETUKHOV
Tech. Officer: GRC/I L KRAINSKY
 CASE Category: 13 - PHYSICS

NAG 5 386 SOUTH DAKOTA SCHOOL OF MINES & TECH 8365
 RAIN VOLUME ESTIMATION OVER AREAS USING SATELLITE AND RADAR DATA
 01/01/1984 - 04/30/1999 FY99: -\$55 Total: \$743,272
Prin. Invest.: P SMITH, T H VONDER HAAR
Tech. Officer: GSFC/R F ADLER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2950 SOUTH DAKOTA SCHOOL OF MINES & TECH 8366
 SCIENTIFIC KNOWLEDGE FOR INDIAN LEARNING AND LEADERSHIP(SKILL) NASA HONORS SUMMER PROGRAM
 05/31/1995 - 05/31/1999 FY99: \$0 Total: \$533,208
Prin. Invest.: P CAMPONE
Tech. Officer: GSFC/T GULL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6872 SOUTH DAKOTA SCHOOL OF MINES & TECH 8367
 CENTER FOR EXCELLENCE IN REMOTE SENSING AT SDSM&T
 01/13/1998 - 06/30/1999 FY99: \$0 Total: \$82,300
Prin. Invest.: M PRICE
Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7746 SOUTH DAKOTA SCHOOL OF MINES & TECH 8368
 PROVIDE FOR SCIENTIFIC KNOWLEDGE FOR INDIAN LEARNING AND LEADERSHIP FOR MISSION TO PLANET EARTH
 10/21/1998 - 08/31/1999 FY99: \$100,000 Total: \$100,000
Prin. Invest.: F CAMPONE
Tech. Officer: GSFC/N KHAZENIE
 CASE Category: 21 - MATHEMATICS

NAG 8 1447 SOUTH DAKOTA SCHOOL OF MINES & TECH 8369
 UPPER MISSOURI RIVER BASIN HYDROLOGY: PILOT PROJECT
 02/23/1998 - 01/31/2000 FY99: \$0 Total: \$800,000
Prin. Invest.: S O FAREWELL, P L SMITH
Tech. Officer: MSFC/J ARNOLD
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG13 99021 SOUTH DAKOTA SCHOOL OF MINES & TECH 8370
 APPLICATION OF REMOTE SENSING TO FOREST RESOURCE INVENTORY AND HABITAT MODELING
 08/13/1999 - 08/12/2000 FY99: \$53,298 Total: \$53,298
Prin. Invest.: M PRICE
Tech. Officer: JSC/R MCKELLIP
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 402 SOUTH DAKOTA SCHOOL OF MINES & TECH 8371
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/14/1999 - 06/30/2000 FY99: \$225,000 Total: \$225,000
Prin. Invest.: S FARWELL
Tech. Officer: GSFC/D DETROYE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 9 24 SOUTH DAKOTA SCHOOL OF MINES & TECH 8372
 ELECTRONIC EXTENSION SERVICES
 05/18/1994 - 08/30/1999 FY99: -\$23,074 Total: \$1,321,338
Prin. Invest.: T S ARNESON
Tech. Officer: JSC/C WOOLLEY
 CASE Category: 49 - ENGINEERING, OTHER

NGT 3 52312 SOUTH DAKOTA SCHOOL OF MINES & TECH 8373
 IN-SITU NEAR INFRA-RED CURE MONITORING AND SURFACE ANALYSIS OF POLYMER COMPOSITES
 06/21/1996 - 06/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: J KELLER
Tech. Officer: GRC/F MONTEGANI
 CASE Category: 47 - METAL & MATERIALS ENGR

NGT 5 40042 SOUTH DAKOTA SCHOOL OF MINES & TECH 8374
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 01/24/1997 - 02/28/2000 FY99: \$212,500 Total: \$595,000
Prin. Invest.: S O FARWELL
Tech. Officer: GSFC/L KEFFER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3445 SOUTH DAKOTA STATE UNIVERSITY 8375
 CHARACTERIZATION OF LANDSAT-7 GEOMETRY AND RADIOMETRY FOR LAND COVER ANALYSIS
 10/04/1996 - 10/31/1999 FY99: \$76,788 Total: \$241,230
Prin. Invest.: D HELDER
Tech. Officer: GSFC/D L WILLIAMS
 CASE Category: 11 - ASTRONOMY

NAG 5 3540 SOUTH DAKOTA STATE UNIVERSITY 8376
 TM RADIOMETRIC CALIBRATION
 11/19/1996 - 10/31/1999 FY99: \$64,024 Total: \$183,026
Prin. Invest.: D HELDER
Tech. Officer: GSFC/D L WILLIAMS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

TENNESSEE

NAG 8 1218 EAST TENNESSEE STATE UNIVERSITY 8377
 JOVE
 11/30/1995 - 08/31/1998 FY99: \$0 Total: \$81,000
Prin. Invest.: D J WILSON
Tech. Officer: MSFC/D SIX
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1375 EAST TENNESSEE STATE UNIVERSITY 8378
 METASTABLE SOLUTION STRUCTURE AND OPTIMIZATION STRATEGIES IN PROTEIN CRYSTAL GROWTH
 06/18/1997 - 11/30/2000 FY99: \$121,000 Total: \$246,000
Prin. Invest.: L WILSON
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
 CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 5242 EAST TENNESSEE STATE UNIVERSITY 8379
 VERIFICATION AND VALIDATION OF AUTOMATICALLY GENERATED
 SOURCE CODE
 10/30/1997 – 12/31/1999 FY99: \$19,648 Total: \$98,430
Prin. Invest.: J HENRY
Tech. Officer: ARC/F A PATTERSON-HINE
CASE Category: 22 – COMPUTER SCIENCE

NAG 2 6015 FISK UNIVERSITY 8380
 TRAINING UNDER-REPRESENTED STUDENTS IN BIOLOGICAL RESEARCH
 AT FISK UNIVERSITY
 08/20/1997 – 04/30/1999 FY99: \$67,000 Total: \$165,961
Prin. Invest.: M GUNASEKARAN
Tech. Officer: ARC/D J COLLINS
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NAG 3 1942 FISK UNIVERSITY 8381
 LINEAR & NONLINEAR OPTICAL PROPERTIES, CARRIER DYNAMICS & SUR-
 FACE MORPHOLOGY
 08/22/1996 – 08/12/1999 FY99: \$36,618 Total: \$149,618
Prin. Invest.: D O HENDERSON
Tech. Officer: GRC/S G BAILEY
CASE Category: 13 – PHYSICS

NAG 3 2126 FISK UNIVERSITY 8382
 RELATIONSHIPS BETWEEN INTERFACIAL DIFFUSIONS AND REACTIONS
 AND ELECTRICAL PROPERTIES OF METAL ULTRA
 02/23/1998 – 04/16/1999 FY99: \$0 Total: \$72,000
Prin. Invest.: W E COLLINS
Tech. Officer: GRC/D J LARKIN
CASE Category: 45 – ELECTRICAL ENGR

NAG 8 1402 FISK UNIVERSITY 8383
 1997 PARTNERSHIP AWARD TELEMEDICINE AND RAPID IDENTIFICATION OF
 MICROORGANISM BY FOURIER
 09/09/1997 – 09/30/1999 FY99: \$189,079 Total: \$378,158
Prin. Invest.: H T CAULFRED
Tech. Officer: MSFC/J BIBRO
CASE Category: 11 – ASTRONOMY

NAG 8 1538 FISK UNIVERSITY 8384
 R/S A LABORATORY INVESTIGATION OF COLLECTION GRAIN CHARGING IN
 SPACE DUSTY PLASMAS
 07/13/1998 – 07/12/1999 FY99: \$0 Total: \$49,901
Prin. Invest.: E THOMAS, JR.
Tech. Officer: MSFC/J SPAN
CASE Category: 13 – PHYSICS

NAG 8 1604 FISK UNIVERSITY 8385
 OPTICAL TRAPPING AND MANIPULATION OF NANOCRYSTALS CREATED IN
 A LASER ABLATION PLUME
 04/21/1999 – 04/20/2002 FY99: \$106,490 Total: \$106,490
Prin. Invest.: D O HENDERSON
Tech. Officer: JU
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NCC 3 575 FISK UNIVERSITY 8386
 CONSORTIUM FOR ADVANCING RENEWABLE ENERGY TECHNOLOGY
 (CARET)
 09/11/1997 – 07/14/2000 FY99: \$0 Total: \$1,002,620
Prin. Invest.: D O HENDERSON
Tech. Officer: GRC/A F HEPP
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NCC 5 286 FISK UNIVERSITY 8387
 NOVEL METHODS OF FABRICATION AND EVALUATION OF ROOM TEMPER-
 ATURE X-RAY AND GAMMA-RAY CDZNT DETECT
 12/12/1997 – 12/14/1999 FY99: \$180,949 Total: \$280,949
Prin. Invest.: A BURGER
Tech. Officer: GSFC/N GEHRELS
CASE Category: 13 – PHYSICS

NCC 8 133 FISK UNIVERSITY 8388
 FOR RESEARCH "FISK UNIVERSITY CENTER FOR PHOTONIC MATERIALS
 AND DEVICES"
 04/21/1997 – 12/31/1999 FY99: \$1,000,000 Total: \$3,000,000
Prin. Invest.: E SILHERMAN
Tech. Officer: MSFC/D O FRAZIER
CASE Category: 13 – PHYSICS

NCC 8 145 FISK UNIVERSITY 8389
 NOVEL METHOD FOR EVALUATION OF UNIFORMITY AND STRUCTURAL
 HOMOGENEITY OF TERNARY WIDE GAP SEMI
 09/19/1997 – 09/30/1999 FY99: \$166,049 Total: \$366,049
Prin. Invest.: A BURGER
Tech. Officer: MSFC/A LEHOCZKY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NCC 8 163 FISK UNIVERSITY 8390
 CRYSTAL GROWTH OF AZSE AND RELATED TERNARY COMPOUND SEMI-
 CONDUCTORS BY VAPOR TRANSPORT
 01/11/1999 – 01/10/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: A BURGER
Tech. Officer: MSFC/C H SU
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NCC 8 195 FISK UNIVERSITY 8391
 CHARACTERIZATION OF CRYSTALLINE PERFECTION OF BINARY AND TER-
 NARY GAP SEMICONDUCTORS
 09/30/1999 – 09/29/2001 FY99: \$99,935 Total: \$99,935
Prin. Invest.: A BURGER
Tech. Officer: MSFC/C HUA SU
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 9 934 MEHARRY MEDICAL COLLEGE 8392
 1997 NASA MEHARRY RESEARCH PROGRAM
 06/06/1997 – 12/30/1998 FY99: -\$33,622 Total: \$49,831
Prin. Invest.: J E WILSON
Tech. Officer: JSC/J ATKINSON
CASE Category: 56 – MEDICAL

NAG 8 1211 MIDDLE TENNESSEE STATE UNIVERSITY 8393
 JOVE
 09/22/1995 – 08/31/1999 FY99: \$0 Total: \$82,000
Prin. Invest.: D HEFFINGTON, D WHITE
Tech. Officer: MSFC/D SIX
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 8 1486 MIDDLE TENNESSEE STATE UNIVERSITY 8394
 R/S DEVELOPMENT OF ANIONIC POLYELECTROLYTES FOR SOLID STATE
 BATTERY APPLICATION
 04/21/1998 - 01/31/2002 FY99: \$59,333 Total: \$106,000
Prin. Invest.: A C FRIEDLI
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6049 RHODES COLLEGE 8395
 ACCELERATION OF THE SOLAR WIND
 07/25/1997 - 08/31/1998 FY99: \$0 Total: \$20,370
Prin. Invest.: D MACQUEEN
Tech. Officer: GSFC/M FORMAN
CASE Category: 11 - ASTRONOMY

NAGW 4671 RHODES COLLEGE 8396
 ACCELERATION OF THE SOLAR WIND
 09/12/1995 - 08/31/1998 FY99: \$0 Total: \$40,740
Prin. Invest.: R M MACQUEEN
Tech. Officer: HQ/W V JONES, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 3 1709 TENNESSEE STATE UNIVERSITY 8397
 TSU RESEARCH PROJECT FOR INCREASING THE POOL OF MINORITY
 ENGINEERS
 02/01/1995 - 12/15/1998 FY99: \$0 Total: \$253,979
Prin. Invest.: B ROGERS
Tech. Officer: GRC/J BOYD
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1797 TENNESSEE STATE UNIVERSITY 8398
 MELTING OF SOLID PARTICLES IN A FLUID UNDER MICROGRAVITY
 11/28/1995 - 12/31/1999 FY99: \$150,004 Total: \$599,924
Prin. Invest.: P X TAO
Tech. Officer: GRC/D S SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2244 TENNESSEE STATE UNIVERSITY 8399
 THE TSU RESEARCH PROJECT FOR INCREASING THE POOL OF MINORITY
 ENGINEERS
 03/18/1999 - 02/15/2000 FY99: \$82,400 Total: \$82,400
Prin. Invest.: D B ROGERS
Tech. Officer: GRC/M L BOROWSKI
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2266 TENNESSEE STATE UNIVERSITY 8400
 COLLEGE BOUND COLLEGE BOUND
 05/13/1999 - 07/31/1999 FY99: \$28,750 Total: \$28,750
Prin. Invest.: D B ROGERS
Tech. Officer: GRC/R F LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2272 TENNESSEE STATE UNIVERSITY 8401
 TECHNICAL RESEARCH/MENTORSHIP SYMPOSIUM '99 INTEGRATION OF
 EDUCATION, WORK CYCLES, AND GRADUATE SCH
 06/23/1999 - 06/30/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: D B ROGERS
Tech. Officer: GRC/R F LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 217 TENNESSEE STATE UNIVERSITY 8402
 NEW AUTOMATED WEB BASED TRACKING SYSTEM
 09/01/1997 - 09/30/2000 FY99: \$22,240 Total: \$330,600
Prin. Invest.: S SINGH DEVGAN
Tech. Officer: KSC/K BALLARD
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 977 TENNESSEE STATE UNIVERSITY 8403
 THE ASSOCIATE PRINCIPAL ASTRONOMER FOR AUTOMATIC TELESCOPES
 01/24/1997 - 09/30/1998 FY99: \$0 Total: \$120,000
Prin. Invest.: G W HENRY
Tech. Officer: ARC/K J SWANSON, ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 96 TENNESSEE STATE UNIVERSITY 8404
 NASA/TSU NETWORK RESOURCE AND TRAINING SITE
 08/15/1995 - 08/14/2000 FY99: \$600,000 Total: \$2,445,000
Prin. Invest.: W SMITH
Tech. Officer: GSFC/J BENNETT
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 228 TENNESSEE STATE UNIVERSITY 8405
 UNIVERSITY RESEARCH CENTER FOR AUTOMATED SPACE SCI 7/1/97 -
 6/30/98
 09/05/1997 - 06/30/2000 FY99: \$1,025,000 Total: \$2,945,000
Prin. Invest.: M BUSBY
Tech. Officer: GSFC/P SAKIMOTO
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCCW 85 TENNESSEE STATE UNIVERSITY 8406
 CENTER FOR AUTOMATED SPACE SCIENCE
 07/20/1995 - 06/30/2000 FY99: \$0 Total: \$3,000,000
Prin. Invest.: M R BUSBY
Tech. Officer: HQ/B L WHITE
CASE Category: 11 - ASTRONOMY

NGT 5 90013 TENNESSEE STATE UNIVERSITY 8407
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 12/31/1996 - 08/14/1999 FY99: \$0 Total: \$120,000
Prin. Invest.: D E ROGERS
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 45 - ELECTRICAL ENGR

NAG 8 1279 TENNESSEE TECHNOLOGICAL UNIVERSITY 8408
 RESEARCH FOR JOVE
 01/21/1997 - 08/31/1999 FY99: \$0 Total: \$75,000
Prin. Invest.: J C CHAI
Tech. Officer: MSFC/J P DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1631 TENNESSEE TECHNOLOGICAL UNIVERSITY 8409
 ANALYSIS OF NEARLY STEADY PHOTOSPHERIC FLOWS
 09/07/1999 - 09/08/2002 FY99: \$29,000 Total: \$29,000
Prin. Invest.: S HAN
Tech. Officer: MSFC/D HATHAWAY
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 8 52883 **TENNESSEE TECHNOLOGICAL UNIVERSITY** **8410**
 HYDROSTATIC EFFECTS ON YIELDING AND FATIGUE LIFE
 09/10/1999 - 09/09/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: C WILSON
Tech. Officer: MSFC/J DOWDY
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2092 **UNIVERSITY OF MEMPHIS** **8411**
 DYNAMIC INVESTIGATION OF STANDARD AND NON-STANDARD PARALLEL-
 AXIS GEARS
 12/09/1997 - 11/23/2000 FY99: \$40,000 Total: \$90,000
Prin. Invest.: H H LIN
Tech. Officer: GRC/F B OSWALD
CASE Category: 46 - MECHANICAL ENGR

NAG 5 2995 **UNIVERSITY OF MEMPHIS** **8412**
 ZSCAPE A COUPLED TECTONIC GEOMORPHIC LANDSCAPE EVOLUTION
 MODEL
 07/07/1995 - 12/31/1999 FY99: \$0 Total: \$175,000
Prin. Invest.: M ELLIS
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7197 **UNIVERSITY OF MEMPHIS** **8413**
 NEW DIAGNOSTIC CONSTRAINTS FOR CORONAL HEATING AND LOOP
 DYNAMICS MODELS
 04/14/1998 - 04/30/2000 FY99: \$0 Total: \$43,537
Prin. Invest.: J T SCHMELZ
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7617 **UNIVERSITY OF MEMPHIS** **8414**
 FUNDING FOR 'LANDSLIDE HAZARD IN RESPONSE TO SHORT TERM CLI-
 MATE CHANGE' (SENH98-0020)
 07/24/1998 - 12/31/1999 FY99: \$75,000 Total: \$112,500
Prin. Invest.: M ELLIS
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 8 1371 **UNIVERSITY OF MEMPHIS** **8415**
 R/S "MODELING MAGNETICALLY ACTUATED POSITIVE POSITIONING OF
 CRYOGENIC PROPELLANTS"
 05/22/1997 - 12/31/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: J HOCHSTEIN
Tech. Officer: MSFC/G SCHMIDT
CASE Category: 13 - PHYSICS

NAG 1 2163 **UNIVERSITY OF TENNESSEE - KNOXVILLE** **8416**
 ATMOSPHERIC ENTRY STUDIES FOR MARS MISSIONS
 04/21/1999 - 12/31/1999 FY99: \$20,000 Total: \$20,000
Prin. Invest.: J E LYNE
Tech. Officer: LARC/M M MUNK
CASE Category: 42 - AERONAUTICAL ENGR

NAG 1 2185 **UNIVERSITY OF TENNESSEE - KNOXVILLE** **8417**
 MODERN DESIGN OF EXPERIMENTS USING NEURAL NETWORKS
 04/21/1999 - 09/30/1999 FY99: \$30,000 Total: \$30,000
Prin. Invest.: C F LO
Tech. Officer: LARC/R DELOACH
CASE Category: 21 - MATHEMATICS

NAG 2 1218 **UNIVERSITY OF TENNESSEE - KNOXVILLE** **8418**
 PARALLEL & DISTRIBUTED SYSTEM SIMULATION
 05/18/1998 - 09/30/1998 FY99: \$0 Total: \$40,000
Prin. Invest.: J DONGARRA
Tech. Officer: ARC/S SAINI
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2068 **UNIVERSITY OF TENNESSEE - KNOXVILLE** **8419**
 DEVELOPMENT OF A 3-D TURBOFAN INLET DISCRETE TONE RADIATION
 ANALYSIS CODE
 08/15/1997 - 10/31/1999 FY99: \$58,256 Total: \$108,092
Prin. Invest.: J E CARUTHERS
Tech. Officer: GRC/E ENVIA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3464 **UNIVERSITY OF TENNESSEE - KNOXVILLE** **8420**
 INNOVATIVE RESEARCH PROGRAM - ISOTOPE MEASUREMENTS
 11/02/1996 - 08/31/2000 FY99: \$0 Total: \$294,991
Prin. Invest.: N THONNARD
Tech. Officer: GSFC/D HOLLAND
CASE Category: 11 - ASTRONOMY

NAG 5 4370 **UNIVERSITY OF TENNESSEE - KNOXVILLE** **8421**
 PETROGENESIS OF THE LUNAR AND PLANETARY CRUSTS AND
 04/16/1997 - 01/31/1999 FY99: \$36,250 Total: \$255,000
Prin. Invest.: D A TAYLOR
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4387 **UNIVERSITY OF TENNESSEE - KNOXVILLE** **8422**
 CONSTRAINING ACCRETION AND DIFFERENTIATION OF PLAN MODELLING
 04/24/1997 - 02/28/2000 FY99: \$66,517 Total: \$149,100
Prin. Invest.: D Y MCSWEEN, JR.
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4541 **UNIVERSITY OF TENNESSEE - KNOXVILLE** **8423**
 METEORITE PETROGENESIS
 05/06/1997 - 03/31/2000 FY99: \$156,000 Total: \$326,000
Prin. Invest.: D V MCSWEEN, JR.
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4842 **UNIVERSITY OF TENNESSEE - KNOXVILLE** **8424**
 MINERALOGY AND SPECTRAL PROPERTIES OF LUNAR SOIL
 06/19/1997 - 04/30/2000 FY99: \$27,000 Total: \$77,000
Prin. Invest.: D A TAYLOR
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6237 **UNIVERSITY OF TENNESSEE - KNOXVILLE** **8425**
 FUNDING FOR GRANT - TITLE "ADAPTIVE IMAGING: LOW IMAGING
 THROUGH TURBULENCE" PLEASE CALL CHARLENE @
 08/19/1997 - 08/14/1999 FY99: \$0 Total: \$20,000
Prin. Invest.: W E BLASS
Tech. Officer: GSFC/J J HILLMAN
CASE Category: 11 - ASTRONOMY

NAG 5 8091 UNIVERSITY OF TENNESSEE - KNOXVILLE 8426
 MINERALOGY AND CHEMICAL CHARACTERIZATION OF LUNAR SOILS:
 REMOTESENSING SCIENCE
 01/28/1999 - 01/31/2000 FY99: \$27,000 Total: \$27,000
 Prin. Invest.: L A TAYLOR
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8154 UNIVERSITY OF TENNESSEE - KNOXVILLE 8427
 LUNAR AND PLANETARY PETROLOGY AND GEOCHEMISTRY
 02/16/1999 - 01/31/2000 FY99: \$116,500 Total: \$116,500
 Prin. Invest.: L A TAYLOR
 Tech. Officer: HQ/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8405 UNIVERSITY OF TENNESSEE - KNOXVILLE 8428
 TOWARD THE CORE COLLAPSE SUPERNOVA MECHANISM: THE NEXT GEN-
 ERATION INNEUTRINO TRANSPORT AND CONVE
 03/16/1999 - 08/31/2000 FY99: \$55,000 Total: \$55,000
 Prin. Invest.: A MEZZACAPPA
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8726 UNIVERSITY OF TENNESSEE - KNOXVILLE 8429
 PLANETARY PETROLOGY AND GEOCHEMISTRY
 08/04/1999 - 07/31/2000 FY99: \$24,000 Total: \$24,000
 Prin. Invest.: L A TAYLOR
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 8760 UNIVERSITY OF TENNESSEE - KNOXVILLE 8430
 TOWARDS INTELLIGENT DISTRIBUTED BIOLUMINESCENCE DETECTION OF
 BIOLOGICAL CONTAMINATION AND STRESSORS
 08/26/1999 - 08/31/2000 FY99: \$46,020 Total: \$46,020
 Prin. Invest.: G S SAYLER
 Tech. Officer: GSFC/R CROUCH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8773 UNIVERSITY OF TENNESSEE - KNOXVILLE 8431
 NHSE - THE NATIONAL HPCC SOFTWARE EXCHANGE
 09/07/1999 - 08/31/2000 FY99: \$104,600 Total: \$104,600
 Prin. Invest.: J DONGARRA
 Tech. Officer: GSFC/J FISCHER
 CASE Category: 22 - COMPUTER SCIENCE

NAG 8 1336 UNIVERSITY OF TENNESSEE - KNOXVILLE 8432
 DEVELOPMENT OF LIQUID HANDLING TECHNIQUES IN MICRO GRAVITY
 UNDER DR. B.N. ANTAR
 03/06/1997 - 09/04/1999 FY99: \$15,000 Total: \$54,916
 Prin. Invest.: B N ANTAR
 Tech. Officer: MSFC/D M KORNEFELD
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1442 UNIVERSITY OF TENNESSEE - KNOXVILLE 8433
 R/S PROJECT SEE (SATELITE ENERGY EXCHANGE) TEST OF EQUIVALENCE
 PRINCIPLE & MEASUREMENT OF GRAVITATION
 04/24/1998 - 01/31/2003 FY99: \$40,000 Total: \$70,000
 Prin. Invest.: A J SANDERS, NONE
 Tech. Officer: MSFC/J POE
 CASE Category: 13 - PHYSICS

NAG 8 1568 UNIVERSITY OF TENNESSEE - KNOXVILLE 8434
 REVERSIBLE CRYOGENIC STORAGE OF MACROMOLECULAR CRYSTALS
 GROWN IN MICROGRAVITY
 01/15/1999 - 11/30/2002 FY99: \$123,000 Total: \$123,000
 Prin. Invest.: G J BUNICK
 Tech. Officer: MSFC/B V GUYNES, MSFC/D CHAFEE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 858 UNIVERSITY OF TENNESSEE - KNOXVILLE 8435
 DOSE-TIME PROFILES OF MAJOR SOLAR ENERGETIC PARTICLE EVENTS
 01/19/1996 - 09/19/1998 FY99: -\$1 Total: \$104,630
 Prin. Invest.: D W TOWNSEND
 Tech. Officer: JSC/G BADHWAR
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 1080 UNIVERSITY OF TENNESSEE - KNOXVILLE 8436
 BIOLUMINESCENT BIOREPORTER INTEGRATED CIRCUITS FOR MONITOR-
 ING SPACECRAFT ENVIRONMENTS
 03/15/1999 - 03/14/2002 FY99: \$193,066 Total: \$193,066
 Prin. Invest.: G S SAYLER Prin. Invest.: NONE
 Tech. Officer: JPL/D JAN
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 1121 UNIVERSITY OF TENNESSEE - KNOXVILLE 8437
 PREDICTING ASTRONAUT RADIATION DOSE FROM SOLAR ENERGETIC
 07/01/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: J S NEAL
 Tech. Officer: JSC/G BADHWAR
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1123 UNIVERSITY OF TENNESSEE - KNOXVILLE 8438
 MEASUREMENT OF SECONDARY NEUTRON AND CHARGES PARTIAL
 SPECTRA
 07/01/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
 Prin. Invest.: D L STEPHENS
 Tech. Officer: JSC/F A CUCINOTTA
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG10 221 UNIVERSITY OF TENNESSEE - KNOXVILLE 8439
 GRAVITATIONAL EFFECTS ON EMBRYOGENESIS
 07/31/1997 - 10/31/1999 FY99: \$70,000 Total: \$182,000
 Prin. Invest.: R CONGES
 Tech. Officer: KSC/W KNOTT
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG13 55 UNIVERSITY OF TENNESSEE - KNOXVILLE 8440
 PC-BASED CFD NUMERICAL MODEL OF HYDROGEN FLAMES FROM
 ROCKET TEST STAND FLARE STACK
 06/18/1997 - 06/17/1998 FY99: \$0 Total: \$50,000
 Prin. Invest.: R SCHULTZ
 Tech. Officer: SSC/B ST. CYR
 CASE Category: 55 - AGRICULTURE

NAS 8 97301 UNIVERSITY OF TENNESSEE - KNOXVILLE 8441
 CRITICAL PHYSICAL PROCESSES, IGNITION, DDT LENGTHS AND TIME
 ACCURATE TREATMENTS
 07/30/1997 - 12/31/1999 FY99: \$25,000 Total: \$130,000
 Prin. Invest.: J W MUELHAUSER
 Tech. Officer: MSFC/J COLE
 CASE Category: 13 - PHYSICS

NCC 1 223 UNIVERSITY OF TENNESSEE - KNOXVILLE 8442
 EXPLORATORY INVESTIGATION OF AERODYNAMICS DRAG REDUCTION
 USING A SURFACE LAYER OF UNIFORM GLOW
 02/29/1996 - 05/31/1998 FY99: \$-1 Total: \$153,684
Prin. Invest.: J R ROTH, D M SHERMAN
Tech. Officer: LARC/S P WILKINSON
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5265 UNIVERSITY OF TENNESSEE - KNOXVILLE 8443
 THE STUDY OF HYBRID COMPUTATION METHODS FOR THE COMPUTATION
 OF ROTOR FLOWS AT LOW FLIGHT SPEEDS
 04/23/1998 - 12/31/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: J STEINHOFF
Tech. Officer: ARC/F CARDONNA
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5274 UNIVERSITY OF TENNESSEE - KNOXVILLE 8444
 DEVELOPING INFORMATION POWER GRID BASED ALGORITHMS & SOFT-
 WARE
 06/30/1998 - 10/31/1998 FY99: \$0 Total: \$50,000
Prin. Invest.: J DONGARRA
Tech. Officer: ARC/S SAINI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5284 UNIVERSITY OF TENNESSEE - KNOXVILLE 8445
 PERFORMANCE MODELING
 07/28/1998 - 10/31/1998 FY99: \$0 Total: \$50,000
Prin. Invest.: J DONGARRA
Tech. Officer: ARC/SSAINI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5285 UNIVERSITY OF TENNESSEE - KNOXVILLE 8446
 ALGORITHMS & LIBRARIES
 07/28/1998 - 10/31/1998 FY99: \$0 Total: \$50,000
Prin. Invest.: J DONGARRA
Tech. Officer: ARC/S SAINI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5310 UNIVERSITY OF TENNESSEE - KNOXVILLE 8447
 DEVELOPING INFORMATION POWER GRID BASED ALGORITHMS & SOFT-
 WARE
 03/15/1999 - 02/29/2000 FY99: \$95,000 Total: \$95,000
Prin. Invest.: J DONGARRA
Tech. Officer: ARC/S SAINI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5312 UNIVERSITY OF TENNESSEE - KNOXVILLE 8448
 PERFORMANCE MODELING
 03/19/1999 - 02/29/2000 FY99: \$90,000 Total: \$90,000
Prin. Invest.: J DONGARRA
Tech. Officer: ARC/S SAINI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5313 UNIVERSITY OF TENNESSEE - KNOXVILLE 8449
 DEVELOPING & VALIDATING ROTORCRAFT SIMULATION MODELS
 04/02/1999 - 06/30/2000 FY99: \$40,000 Total: \$40,000
Prin. Invest.: J DONGARRA
Tech. Officer: ARC/S DAINI
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 88 UNIVERSITY OF TENNESSEE - KNOXVILLE 8450
 CHAOS UNDERSTANDING AND CONTROLLING LASER INSTABILITY
 05/03/1995 - 11/14/1999 FY99: \$0 Total: \$65,000
Prin. Invest.: W E BLASS
Tech. Officer: GSFC/G CHIN
CASE Category: 11 - ASTRONOMY

NGT 1 52138 UNIVERSITY OF TENNESSEE - KNOXVILLE 8451
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/26/1996 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: C R RAMSEY, L W TOWNSEND
Tech. Officer: LARC/J W WILSON, LARC/F A CUCINOTTA
CASE Category: 13 - PHYSICS

NGT 1 52218 UNIVERSITY OF TENNESSEE - KNOXVILLE 8452
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/04/1999 - 06/30/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: B R STARR
Tech. Officer: LARC/T A TALAY, LARC/R A LEPSCH
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 5 50206 UNIVERSITY OF TENNESSEE - KNOXVILLE 8453
 EVALUATION OF CONSTRUCTED MICROBIAL COMMUNITIES AS INOCULA
 FOR BIOLOGICAL SUPPORT SYSTEMS
 07/09/1998 - 07/14/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: G SAYLER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 61 - PSYCHOLOGY/BIOLOGY

NAS 9 19571 UNIVERSITY OF TENNESSEE - MEMPHIS 8454
 SERVICES/PAYLOAD SPECIALIST/NEUROLAB MISSION
 08/23/1996 - 07/03/1998 FY99: \$0 Total: \$255,932
Prin. Invest.: A DUNLAP
Tech. Officer: JSC/K NEWKIRK
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 3 1984 VANDERBILT UNIVERSITY 8455
 UNSEEDING SCALAR-VELOCITY MEASUREMENTS FOR PROPELLANT
 FLOWS
 11/18/1996 - 11/06/1999 FY99: \$63,738 Total: \$238,252
Prin. Invest.: R W PITZ
Tech. Officer: GRC/R G SEASHOLTZ
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3341 VANDERBILT UNIVERSITY 8456
 INNOVATION RESEARCH PROGRAM "DEVELOPMENT OF A TELE IMPLANTATION
 OF A MICROSCOPIC ENVIRONMENT" HQNAGW-47
 11/02/1996 - 12/31/1998 FY99: \$0 Total: \$138,474
Prin. Invest.: M GOLDFARE
Tech. Officer: GSFC/V THORNE
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 5 4291 VANDERBILT UNIVERSITY 8457
 MONTE CARLO MODELS OF SCATTERED LIGHT FROM SOLAR S AROUND
 LOW MASS YSO'S
 04/18/1997 - 08/31/1998 FY99: \$0 Total: \$30,000
Prin. Invest.: D A WEINTRAUB
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4428 **VANDERBILT UNIVERSITY** **8458**
 AN INFRARED SPECTROSCOPIC SURVEY OF ICY GRAINS IN CIRCUMSTELLAR ENVIRONMENTS OF YOUNG STARS
 05/06/1997 - 03/31/1999 FY99: \$0 Total: \$30,000
Prin. Invest.: D A WEINTRAUB
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4988 **VANDERBILT UNIVERSITY** **8459**
 MODEL ATMOSPHERES AND SPECTRA FOR EXTRASOLAR GIANT
 06/26/1997 - 06/14/2000 FY99: \$54,137 Total: \$89,354
Prin. Invest.: D SAUMON
Tech. Officer: GSFC/R BEEBE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7103 **VANDERBILT UNIVERSITY** **8460**
 INVESTIGATION OF GROUND-BASED SINGLE EVENT EFFECTS: RELATIONSHIP TO SCALING, LOW-POWER, AND OTHER M
 03/13/1998 - 12/31/1999 FY99: \$0 Total: \$49,952
Prin. Invest.: L MASSENGILL
Tech. Officer: GSFC/M M GATES
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 7556 **VANDERBILT UNIVERSITY** **8461**
 A STUDY OF THE IONOSPHERE AS A SOURCE OF PLASMA FOR THE MAGNETOSPHERE
 06/25/1998 - 06/30/1999 FY99: \$0 Total: \$70,000
Prin. Invest.: E DAVID
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8295 **VANDERBILT UNIVERSITY** **8462**
 AN ADDITIONAL CONSTRAINT ON THE TIMESCALE FOR PLANET BUILDING
 02/22/1999 - 03/31/2000 FY99: \$15,000 Total: \$15,000
Prin. Invest.: D A WEINTRAUB
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8618 **VANDERBILT UNIVERSITY** **8463**
 A STUDY OF ION OUTFLOW AS A SOURCE FOR THE MAGNETOSPHERE
 06/14/1999 - 06/30/2000 FY99: \$70,000 Total: \$70,000
Prin. Invest.: R CHAPPELL
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 11 - ASTRONOMY

NAG 8 1275 **VANDERBILT UNIVERSITY** **8464**
 MICROGRAVITY PROCESSING OF OXIDE SUPERCONDUCTORS
 05/30/1996 - 05/31/2001 FY99: \$100,000 Total: \$350,000
Prin. Invest.: W HOFMEISTER
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1298 **VANDERBILT UNIVERSITY** **8465**
 FOR RESEARCH "MODEL-BASED TOOLS FOR REAL-TIME INSTRUMENTATION SYSTEMS"
 06/10/1996 - 06/23/1998 FY99: \$0 Total: \$50,962
Prin. Invest.: T A BAPTIST
Tech. Officer: MSFC/T F ZOLADZ, MSFC/T R FIORUCCI
CASE Category: 22 - COMPUTER SCIENCE

NAGW 3873 **VANDERBILT UNIVERSITY** **8466**
 NAGW-3873/B VANDERBILT UNIV. "THE SYMPATHETIC NERVOUS SYSTEM IN THE ANEMIA OF WEIGHTLESSNESS"
 02/25/1994 - 10/30/1997 FY99: -\$14,698 Total: \$404,518
Prin. Invest.: D ROBERTSON
Tech. Officer: HQ/F M SULZMAN
CASE Category: 56 - MEDICAL

NAS 9 19483 **VANDERBILT UNIVERSITY** **8467**
 AUTONOMIC NEUROPHYSIOLOGY IN MICROGRAVITY
 02/23/1996 - 10/31/1999 FY99: \$235,697 Total: \$829,697
Prin. Invest.: D ROBERTSON
Tech. Officer: JSC/A LEE
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 992 **VANDERBILT UNIVERSITY** **8468**
 ADSORPTION EQUILIBRIUM FOR TRACE CONTAMINANT CONTROL AND INCINERATOR EXHAUST PURIFICATION
 05/22/1997 - 12/31/1999 FY99: \$32,010 Total: \$163,710
Prin. Invest.: M D LEVAN
Tech. Officer: ARC/J E FINN
CASE Category: 43 - CHEMICAL ENGR

NCC 2 1127 **VANDERBILT UNIVERSITY** **8469**
 ADSORPTION EQUILIBRIUM & FIXED BED PERFORMANCE FOR REGENERABLE INCINERATOR EXHAUST PURIFICATION & T
 06/21/1999 - 02/29/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: M D LEVAN
Tech. Officer: ARC/J E FINN
CASE Category: 43 - CHEMICAL ENGR

NCC 8 91 **VANDERBILT UNIVERSITY** **8470**
 INVESTIGATION OF THE RELATIONSHIP BETWEEN UNDER COOLING AND SOLIDIFICATION VELOCITY
 05/09/1996 - 01/31/2000 FY99: \$85,000 Total: \$387,500
Prin. Invest.: R J BAYVZICK
Tech. Officer: MSFC/P DOTY, MSFC/R POWER
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 8 101 **VANDERBILT UNIVERSITY** **8471**
 EXPERIMENT ON NUCLEATION IN DIFFERENT FLOW REGIMES
 05/28/1996 - 10/31/1998 FY99: \$0 Total: \$601,667
Prin. Invest.: R J BAYVZICK
Tech. Officer: MSFC/J BRUNSON
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 3 52316 **VANDERBILT UNIVERSITY** **8472**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/31/1996 - 06/30/1998 FY99: \$0 Total: \$44,000
Prin. Invest.: R PITZ
Tech. Officer: GRC/D MONTEGANI
CASE Category: 46 - MECHANICAL ENGR

NGT 5 40054 **VANDERBILT UNIVERSITY** **8473**
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM
 02/12/1997 - 01/31/2000 FY99: \$475,000 Total: \$1,330,000
Prin. Invest.: A M STRAUSS
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50180 VANDERBILT UNIVERSITY 8474
 MINIMUM SURFACE EFFECT MICROACTUATOR FOR DEXTEROUS MICRO-
 MANIPULATION STUDENT: JAMES H. LIPSEY
 11/25/1997 - 07/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: M GOLDBARB
Tech. Officer: HQ/A NURRIDIN
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 50209 VANDERBILT UNIVERSITY 8475
 INVESTIGATION OF EFFECTS OF DILUTE OXYGEN SOLUTE O N
 NUCLEATION OF ZIRCONIUM
 07/10/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R BAYUZICK
Tech. Officer: HQ/A NURRIDIN
CASE Category: 43 - CHEMICAL ENGR

NGT 5 50212 VANDERBILT UNIVERSITY 8476
 RELIABILITY ASSURANCE OF AEROSPACE STRUCTURES STUDENT -
 ANDREW M. STOEGBNER
 07/15/1998 - 08/31/1999 FY99: \$0 Total: \$21,990
Prin. Invest.: S MAHADEVAN
Tech. Officer: GSFC/R M WEINSTOCK
CASE Category: 49 - ENGINEERING, OTHER

NGT 8 52828 VANDERBILT UNIVERSITY 8477
 GRAD STUDENT RESEARCH PROGRAM FOR MARC SAMUELSON
 09/25/1996 - 01/31/1999 FY99: \$0 Total: \$55,000
Prin. Invest.: M N SAMUELSON
Tech. Officer: MSFC/H WAITES
CASE Category: 49 - ENGINEERING, OTHER

NGT 8 52839 VANDERBILT UNIVERSITY 8478
 R/S "GRADUATE STUDENT RESEARCH PROGRAM" FELLOWSHIP
 07/23/1997 - 08/13/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: M GOLDFARB
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 46 - MECHANICAL ENGR

NGT 8 52852 VANDERBILT UNIVERSITY 8479
 RELIABILITY METHODS FOR AEROSPACE STRUCTURES
 07/01/1998 - 06/14/2000 FY99: \$21,990 Total: \$43,508
Prin. Invest.: S MAHADEVAN
Tech. Officer: MSFC/J F DOWDY
CASE Category: 49 - ENGINEERING, OTHER

NGT 8 52857 VANDERBILT UNIVERSITY 8480
 SCALED FORCE REFLECTIVE TELEMANIPULATION FOR ONBOARD DES-
 TEROUS MANIPULATION OF MICROGRAVITY
 07/23/1998 - 08/14/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: M GOLDFARB
Tech. Officer: MSFC/J F DOWDY
CASE Category: 46 - MECHANICAL ENGR

NGT 8 52859 VANDERBILT UNIVERSITY 8481
 INTEGRATION OF HAPTIC FEEDBACK INTO VIRTUAL ENVIRONMENTS FOR
 MISSION OPERATION APPLICATION
 07/23/1998 - 08/14/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: M GOLDFARB
Tech. Officer: MSFC/J F DOWDY
CASE Category: 46 - MECHANICAL ENGR

NGT 8 52868 VANDERBILT UNIVERSITY 8482
 RELIABILITY ASSURANCE OF AEROSPACE SYSTEMS
 09/09/1999 - 09/08/2000 FY99: \$18,000 Total: \$18,000
Prin. Invest.: S MAHADEVAN
Tech. Officer: MSFC/J DOWDY
CASE Category: 41 - AERONAUTICAL ENGR

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NAG 2 1355 BAYLOR COLLEGE OF MEDICINE 8483
 ROLE OF MATH1 IN DEVELOPMENT & FUNCTION OF PROPRIO RECEPTORS
 07/22/1999 - 01/14/2000 FY99: \$97,782 Total: \$97,782
Prin. Invest.: H J BELLEN, H Y ZOGBHI, NONE
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1357 BAYLOR COLLEGE OF MEDICINE 8484
 THE INTERACTIVE COUPLING OF CYTOSKELETON & SIGNAL TRANSDUC-
 TION ELEMENTS IN GRAVITY SENSITIVITY OF T-
 07/23/1999 - 12/31/1999 FY99: \$73,718 Total: \$73,718
Prin. Invest.: B B HASHEMI
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3712 BAYLOR COLLEGE OF MEDICINE 8485
 ESTABLISHMENT OF THREE DIMENSIONAL PRIMARY HUMAN H
 MICROGRAVITY ENVIRONMENT
 12/11/1996 - 09/30/1999 FY99: \$0 Total: \$268,886
Prin. Invest.: D YOFFE
Tech. Officer: GSFC/B CARPENTER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1383 BAYLOR COLLEGE OF MEDICINE 8486
 FOR RESEARCH ENTITLED "LIVER TISSUE ENGINEERING IN
 MICROGRAVITY ENVIRONMENT"
 06/26/1997 - 11/30/2000 FY99: \$178,000 Total: \$335,000
Prin. Invest.: B YOFE
Tech. Officer: MSFC/C R TALLEY
CASE Category: 56 - MEDICL

NAG 8 1387 BAYLOR COLLEGE OF MEDICINE 8487
 FOR RESEARCH ENTITLED: "TWO DIMENSIONAL CRYSTAL GROWTH IN
 MICROGRAVITY"
 06/23/1997 - 11/30/2000 FY99: \$121,000 Total: \$366,716
Prin. Invest.: T G WENSEL
Tech. Officer: MSFC/B GUYBES, MSFC/J MAYO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1583 BAYLOR COLLEGE OF MEDICINE 8488
 ISLET CELL ASSEMBLY AND FUNCTION IN A NASA MICROGRAVITY BIO-
 REACTOR
 02/02/1999 - 11/30/2002 FY99: \$109,999 Total: \$109,999
Prin. Invest.: A S RAJAN, NONE
Tech. Officer: MSFC/K HIGGINBOTHAM
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 1052 **BAYLOR COLLEGE OF MEDICINE** **8489**
 BIOPHYSICAL MODELS OF DNA DAMAGE, MUTATION, &...
 08/25/1998 - 09/24/2001 FY99: \$138,656 Total: \$188,656
Prin. Invest.: L E PETERSON
Tech. Officer: JSC/F A CUCINOTTA
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1133 **BAYLOR COLLEGE OF MEDICINE** **8490**
 DSO MAGNETIC RESONANCE IMAGING MRI AFTER EXPOSURE TO
 MICROGRAVITY
 07/21/1999 - 07/22/2000 FY99: \$90,072 Total: \$90,072
Prin. Invest.: A LEBLANC
Tech. Officer: JSC/L SHACKLEFORD
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1153 **BAYLOR COLLEGE OF MEDICINE** **8491**
 PROTECTING SCIENTIFIC INTEGRITY THROUGH DISCLOSURE OF CON-
 FFLICTS OF INTERESTS
 09/13/1999 - 09/30/2002 FY99: \$42,088 Total: \$42,088
Prin. Invest.: B A BRODY
Tech. Officer: JSC/C LLOYD
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4437 **BAYLOR COLLEGE OF MEDICINE** **8492**
 PHYSIOLOGICAL MONITORING WITH MAGNETIC RESONANCE IMAGING
 05/04/1995 - 09/30/1997 FY99: \$0 Total: \$396,519
Prin. Invest.: A LEBLANC
Tech. Officer: HQ/V THORNE
CASE Category: 56 - MEDICAL

NAS 9 19404 **BAYLOR COLLEGE OF MEDICINE** **8493**
 MAGNETIC RESONANCE IMAGING AFTER EXPOSURE TO MICRO GRAVITY
 09/25/1995 - 02/29/2000 FY99: \$178,000 Total: \$998,136
Prin. Invest.: A LEBLANC
Tech. Officer: JSC/C M BUNTIN
CASE Category: 56 - MEDICAL

NCC 9 58 **BAYLOR COLLEGE OF MEDICINE** **8494**
 NATIONAL SPACE BIOMEDICAL RESEARCH INSTITUTE
 03/26/1997 - 09/30/2002 FY99: \$10,938,802 Total: \$26,928,233
Prin. Invest.: B R ALFORD, M.D.
Tech. Officer: JSC/C F SAWIN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 9 61 **BAYLOR COLLEGE OF MEDICINE** **8495**
 PREVENTION OF BED REST OSTEOPOROSIS
 05/23/1997 - 05/23/2001 FY99: \$90,000 Total: \$1,310,512
Prin. Invest.: A D LEBLANC
Tech. Officer: JSC/L C SHACKELFORD
CASE Category: 56 - MEDICAL

NCC 9 88 **BAYLOR COLLEGE OF MEDICINE** **8496**
 COMPARISON OF STRENGTH TRAINING WITH ISS INTERIM RESISTANCE
 EXERCISE DEVICE VS FREE
 07/20/1999 - 07/18/2000 FY99: \$23,040 Total: \$23,040
Prin. Invest.: A LEBLANC
Tech. Officer: JSC/S SCHNEIDER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 8566 **HOUSTON COMMUNITY COLLEGE** **8497**
 NASA/HCC SCIENCE CHALLENGE PROGRAM
 05/20/1999 - 08/31/2000 FY99: \$150,000 Total: \$150,000
Prin. Invest.: C GARCIA
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 775 **HUSTON-TILLOTSON COLLEGE** **8498**
 DIVERSITY IN SCIENCE/ENGINEERING & TECHNOLOGY WORKFORCE
 03/17/1995 - 12/15/1997 FY99: \$0 Total: \$65,000
Prin. Invest.: N KAY
Tech. Officer: JSC/C HOSKINS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3776 **JARVIS CHRISTIAN COLLEGE** **8499**
 PACE AWARD. PRECOLLEGE AWARDS FOR EXCELLENCE IN MATHEMATICS
 AND TECHNOLOGY
 02/25/1997 - 11/30/1998 FY99: \$0 Total: \$200,000
Prin. Invest.: M MCKINNEY
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1065 **JARVIS CHRISTIAN COLLEGE** **8500**
 PACE/MSET SUMMER CAMP CAMP FOR TRAINING & MENTORING
 01/07/1999 - 12/31/1999 FY99: \$100,000 Total: \$100,000
Prin. Invest.: M J MCKINNEY
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 772 **LAMAR UNIVERSITY** **8501**
 COMPREHENSIVE SPACE SCIENCE & TECHNOLOGY EDUCATION PRO-
 GRAM TO MOTIVATE K-12 STUDENTS
 03/06/1997 - 03/01/1999 FY99: \$0 Total: \$229,000
Prin. Invest.: J J JORDAN
Tech. Officer: JSC/D P BLANCHARD
CASE Category: 21 - MATHEMATICS

NAG 9 884 **LAMAR UNIVERSITY** **8502**
 LAB TEST OF INSTRUMENTATION INTENDED FOR REMOTE REGOLITH
 STUDIES
 07/12/1996 - 07/31/1998 FY99: -\$67 Total: \$52,433
Prin. Invest.: D JORDAN
Tech. Officer: JSC/D MCKAY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 8 1221 **LE TOURNEAU UNIVERSITY** **8503**
 JOVE
 11/30/1995 - 08/31/1998 FY99: -\$2,797 Total: \$72,203
Prin. Invest.: D FORD, G ANDREWS
Tech. Officer: MSFC/D SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 976 **OUR LADY OF THE LAKE UNIVERSITY** **8504**
 SPACE AND GEOSCIENCE PROJECT
 09/25/1997 - 08/31/1999 FY99: \$164,255 Total: \$390,622
Prin. Invest.: J KUEKER
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1170 OUR LADY OF THE LAKE UNIVERSITY 8505
 ENGAGING EDUCATORS IN THE EARTH/SCIENCE ENTERP
 09/24/1999 - 09/29/2000 FY99: \$99,652 Total: \$99,652
Prin. Invest.: K A WARD
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1154 PRAIRIE VIEW A&M UNIVERSITY 8506
 STUDY OF RADIATION EFFECTS ON INFRARED DETECTORS & MATERIALS
 FOR SPACE-BASED ASTRONOMY APPLICATIONS
 08/27/1997 - 08/31/1999 FY99: \$0 Total: \$129,532
Prin. Invest.: R T WILKINS
Tech. Officer: ARC/C R MCCREIGHT, ARC/G S LEE
CASE Category: 13 - PHYSICS

NAG 3 2065 PRAIRIE VIEW A&M UNIVERSITY 8507
 RADIATION EFFECTS ON DC-DC CONVERTERS RADIATION EFFECTS ON
 DC-DC CONVERTER
 08/01/1997 - 12/31/1999 FY99: \$0 Total: \$393,714
Prin. Invest.: J O ATTIA, R SCHRIMPF, K F GALLOWAY
Tech. Officer: GRC/M D KANKAM
CASE Category: 45 - ELECTRICAL ENGR

NAG 4 148 PRAIRIE VIEW A&M UNIVERSITY 8508
 RADIATION EFFECTS ON ELECTRONIC MATERIAL AND DEVICES
 03/03/1998 - 02/27/2001 FY99: \$77,000 Total: \$167,000
Prin. Invest.: R WILKINS
Tech. Officer: DFRC/E COX
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 2317 PRAIRIE VIEW A&M UNIVERSITY 8509
 THE PLASMA CONFIGURATION OF NEPTUNE'S MAGNETOSPHERE
 07/28/1993 - 05/31/1999 FY99: \$0 Total: \$408,000
Prin. Invest.: T S HUANG
Tech. Officer: GSFC/R E HARTLE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 5130 PRAIRIE VIEW A&M UNIVERSITY 8510
 STUDY OF RADIATION EFFECTS ON ELECTRONIC DEVICES AT HIGH
 ATMOSPHERE ALTITUDES
 07/02/1997 - 09/30/1999 FY99: \$0 Total: \$33,941
Prin. Invest.: R WILKINS
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 6823 PRAIRIE VIEW A&M UNIVERSITY 8511
 ENHANCEMENT OF TEXGED, PVAMU TO BE A CENTER OF EXCELLENCE IN
 APPLICATIONS OF REMOTE SENSING TO REGI
 01/30/1998 - 12/31/1999 FY99: \$0 Total: \$53,308
Prin. Invest.: S H SHAKIR
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1334 PRAIRIE VIEW A&M UNIVERSITY 8512
 R/S #RF97-00112 "COMBUSTION CFD TECHNOLOGY STUDY FOR
 ADVANCED AIRBREATHING PROPULSION SYSTEMS"
 02/12/1997 - 02/28/1999 FY99: \$0 Total: \$200,000
Prin. Invest.: Z HGGUE
Tech. Officer: MSFC/P K MC CONNAUGHEY
CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1338 PRAIRIE VIEW A&M UNIVERSITY 8513
 ESTABLISHMENT OF A SOLAR OBSERVATORY AND STUDIES ON THE
 SOLAR ATMOSPHERE
 03/18/1997 - 07/07/2000 FY99: \$98,800 Total: \$275,946
Prin. Invest.: T HUANG
Tech. Officer: MSFC/J M DAVIS
CASE Category: 11 - ASTRONOMY

NAG 8 1644 PRAIRIE VIEW A&M UNIVERSITY 8514
 ADVANCED FUEL INJECTOR OPTIMIZATION FOR RBCC ENGINE CONCEPT
 09/30/1999 - 09/30/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: Z HAQUE, N BUTUK
Tech. Officer: MSFC/A BEAM, MSFC/W LOVE
CASE Category: 43 - CHEMICAL ENGR

NAG 9 778 PRAIRIE VIEW A&M UNIVERSITY 8515
 LUNAR OUTPOST CONSTRUCTION AND RADIATION PROTECTION
 04/04/1995 - 01/01/1999 FY99: -\$24 Total: \$29,976
Prin. Invest.: R RADHAKRISHMAN
Tech. Officer: JSC/J CONNOLLY
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 9 779 PRAIRIE VIEW A&M UNIVERSITY 8516
 MICROWAVE IMAGING OF METAL OBJECTS
 04/06/1995 - 05/31/1998 FY99: \$0 Total: \$146,000
Prin. Invest.: C L TOLLIVER, J LI
Tech. Officer: JSC/K KRISTEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 878 PRAIRIE VIEW A&M UNIVERSITY 8517
 ORBITAL DEBRIS RESEARCH CENTER
 09/26/1996 - 12/31/1998 FY99: -\$43,351 Total: \$666,649
Prin. Invest.: S B LIN
Tech. Officer: JSC/G CRESS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 926 PRAIRIE VIEW A&M UNIVERSITY 8518
 BONE CONDUCTION HEADSET DEVELOPMENT
 01/31/1997 - 07/30/1998 FY99: -\$189 Total: \$96,729
Prin. Invest.: A KUMARN
Tech. Officer: JSC/E BURRELL
CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 1136 PRAIRIE VIEW A&M UNIVERSITY 8519
 POWER QUALITY AND RELIABILITY
 08/24/1999 - 08/23/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: W F TROTTER, J ATTIA
Tech. Officer: JSC/W C ROEH, JSC/L M ARMENDARIZA
CASE Category: 46 - MECHANICAL ENGR

NAG13 46 PRAIRIE VIEW A&M UNIVERSITY 8520
 TEXAS GULF COAST ENVIRONMENTAL DATA CENTER SAME
 10/04/1995 - 12/17/1999 FY99: \$0 Total: \$270,125
Prin. Invest.: S SHAKIR
Tech. Officer: SSC/A JOYCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 3 475 PRAIRIE VIEW A&M UNIVERSITY 8521
 LOW COST, WIDE BANDWIDTH, AND HIGH GAIN MICROSTRIP ANTENNA
 ARRAY FOR SATELITE AND PERSONAL COMMUNICA
 05/20/1996 - 09/30/1998 FY99: -\$22,000 Total: \$77,097
Prin. Invest.: D LI, D F LEE
Tech. Officer: GRC/R Q LEE
CASE Category: 45 - ELECTRICAL ENGR

NCC 3 577 PRAIRIE VIEW A&M UNIVERSITY 8522
 RESEARCH TO SIGNIFICANTLY ENHANCE COMPOSITES SURVIVABILITY AT
 550 DEGREES F IN OXIDATIVE ENVIRONMENT
 09/26/1997 - 08/31/2000 FY99: \$0 Total: \$100,000
Prin. Invest.: L E CARSON-ISABELLE
Tech. Officer: GRC/M A MEADOR
CASE Category: 12 - CHEMISTRY

NCC 5 115 PRAIRIE VIEW A&M UNIVERSITY 8523
 ESTABLISHMENT OF A NASA SOUTHWEST REGIONAL NETWORK
 RESOURCES TRAINING SITE
 08/15/1995 - 09/14/2000 FY99: \$590,800 Total: \$2,425,800
Prin. Invest.: J R WILLIAMS
Tech. Officer: GSFC/J BENNETT
CASE Category: 22 - COMPUTER SCIENCE

NCC 9 50 PRAIRIE VIEW A&M UNIVERSITY 8524
 TRANSFERRED FROM HQ (NCCW-0086) & INCR FUND
 02/13/1997 - 06/30/2000 FY99: \$975,347 Total: \$3,842,150
Prin. Invest.: T N FOGARTY
Tech. Officer: JSC/J D ATKINSON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 9 66 PRAIRIE VIEW A&M UNIVERSITY 8525
 SOFTWARE ENGINEERING INITIATIVE
 09/25/1997 - 12/31/1999 FY99: \$447,628 Total: \$895,596
Prin. Invest.: J D OLIVER
Tech. Officer: JSC/L MCWHORTER, JSC/K MARTINDALE
CASE Category: 49 - ENGINEERING, OTHER

NCCW 86 PRAIRIE VIEW A&M UNIVERSITY 8526
 CENTER FOR APPLIED RADIATION RESEARCH (CARR)
 08/04/1995 - 06/30/2000 FY99: \$0 Total: \$2,003,775
Prin. Invest.: T N FOGARTY
Tech. Officer: HQ/B L WHITE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 1 1976 RICE UNIVERSITY 8527
 NUMERICAL SIMULATION OF RECEPTIVITY FOR A TRANSITION EXPERI-
 MENT
 12/01/1997 - 11/30/1999 FY99: \$0 Total: \$34,601
Prin. Invest.: S S COLLIS
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2134 RICE UNIVERSITY 8528
 NONLINEAR RECEPTIVITY AND BY-PASS TRANSITION IN THREE-DIMEN-
 SIONAL BOUNDARY LAYERS NRA 98 LARC5
 02/10/1999 - 01/31/2002 FY99: \$38,975 Total: \$38,975
Prin. Invest.: S S COLLIS
Tech. Officer: LARC/R R ANTOLIFF
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1112 RICE UNIVERSITY 8529
 QUANTUM MECHANICAL MODELING OF CARBON NANOSTRUCTURES
 02/07/1997 - 09/30/1999 FY99: \$70,442 Total: \$231,583
Prin. Invest.: G E SCUSERIA
Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1181 RICE UNIVERSITY 8530
 COMPILER TECHNOLOGY EFFECTIVE PARALLELIZATION OF NASA CODES
 02/27/1998 - 01/31/2000 FY99: \$0 Total: \$85,517
Prin. Invest.: J MELLOR-CRUMMEY
Tech. Officer: ARC/A GRADY-HISER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1851 RICE UNIVERSITY 8531
 COLLISIONAL FREQUENCY SHIFTS NEAR A ZERO ENERGY RESONANCE
 05/06/1996 - 05/05/1999 FY99: \$0 Total: \$150,000
Prin. Invest.: P G MULET
Tech. Officer: GRC/B S SINGH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 1195 RICE UNIVERSITY 8532
 STUDY OF THE SOLAR WIND INTERACTIVE WITH MARS
 08/01/1989 - 10/31/1998 FY99: -\$71 Total: \$153,640
Prin. Invest.: P A CLOUTIER
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 1626 RICE UNIVERSITY 8533
 HUBBLE SPACE TELESCOPE RESEARCH
 06/07/1991 - 10/31/1999 FY99: \$0 Total: \$1,805,927
Prin. Invest.: C R O'DELL
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 - ASTRONOMY

NAG 5 2215 RICE UNIVERSITY 8534
 PEACE INVESTIGATION FOR CLUSTER MISSION
 02/17/1993 - 02/28/1998 FY99: \$0 Total: \$245,015
Prin. Invest.: P H REIFF
Tech. Officer: GSFC/M L GOLDSTEIN
CASE Category: 13 - PHYSICS

NAG 5 2689 RICE UNIVERSITY 8535
 CREATING THE PUBLIC CONNECTION: INTERACTIVE EXPERIENCES WITH
 REAL-TIME EARTH AND SPACE SCIENCE
 08/24/1994 - 12/31/1998 FY99: \$0 Total: \$915,163
Prin. Invest.: P REIF
Tech. Officer: GSFC/N LAL
CASE Category: 11 - ASTRONOMY

NAG 5 2736 RICE UNIVERSITY 8536
 NATIONAL SOFTWARE EXCHANGE FOR THE HIGH PERFORMANCE COMPUT-
 ING COMMUNICATIONS PROGRAM
 09/22/1994 - 09/30/2000 FY99: \$0 Total: \$4,187,500
Prin. Invest.: K KENNEDY
Tech. Officer: GSFC/J R FISCHER
CASE Category: 22 - COMPUTER SCIENCE

<p>NAG 5 3070 RICE UNIVERSITY 8537 NUMERICAL SIMULATION OF ACTIVE PULSARS 09/14/1995 – 09/14/1998 FY99: \$0 Total: \$210,000 <i>Prin. Invest.:</i> F C MICHEL <i>Tech. Officer:</i> GSFC/D WEST <i>CASE Category:</i> 11 – ASTRONOMY</p>	<p>NAG 5 4909 RICE UNIVERSITY 8545 A PROCESS LEVEL STUDY OF METHANE EMISSIONS FROM RI 06/19/1997 – 03/31/1999 FY99: \$0 Total: \$170,738 <i>Prin. Invest.:</i> R L SASS <i>Tech. Officer:</i> GSFC/D E WICKLAND <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER</p>
<p>NAG 5 3216 RICE UNIVERSITY 8538 DATA ANALYSIS FOR POLAR MAGNETIC FIELD EXPERIMENT 04/26/1996 – 10/31/1998 FY99: \$0 Total: \$125,000 <i>Prin. Invest.:</i> P H REIFF <i>Tech. Officer:</i> GSFC/R A HOFFMAN <i>CASE Category:</i> 13 – PHYSICS</p>	<p>NAG 5 4958 RICE UNIVERSITY 8546 *GROUND MEASUREMENTS IN SUPPORT OF BIOSAR EXPERIME 07/15/1997 – 06/30/1998 FY99: \$0 Total: \$30,000 <i>Prin. Invest.:</i> P HARCOMBE <i>Tech. Officer:</i> GSFC/M IMHOFF <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER</p>
<p>NAG 5 3824 RICE UNIVERSITY 8539 STUDY OF SOFT GAMMA RAY REPEATERS 01/29/1997 – 02/14/1999 FY99: \$11,000 Total: \$187,840 <i>Prin. Invest.:</i> E P LIANG <i>Tech. Officer:</i> GSFC/J P NORRIS <i>CASE Category:</i> 11 – ASTRONOMY</p>	<p>NAG 5 6411 RICE UNIVERSITY 8547 XTE AO2 – VARIABILITY AND SPECTRAL EVOLUTION OF G RS 1758–258 AND 1E 1740.7–2942 10/24/1997 – 10/31/1998 FY99: \$0 Total: \$20,000 <i>Prin. Invest.:</i> E LIANG <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 – ASTRONOMY</p>
<p>NAG 5 4055 RICE UNIVERSITY 8540 NUMERICAL SIMULATION OF HIGH ENERGY EMISSIONS FROM 03/11/1997 – 03/14/2000 FY99: \$108,000 Total: \$292,000 <i>Prin. Invest.:</i> E T LIANG <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 – ASTRONOMY</p>	<p>NAG 5 6432 RICE UNIVERSITY 8548 MAGNETOSPHERIC CONVECTION AT JUPITER & SATURN 10/14/1997 – 07/14/2000 FY99: \$103,649 Total: \$194,983 <i>Prin. Invest.:</i> D HILL <i>Tech. Officer:</i> GSFC/J BERGSTRAHL <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p>
<p>NAG 5 4072 RICE UNIVERSITY 8541 NASA SPECIALIZED CENTER OF RESEARCH AND TRAINING (AL BIOLOGY 04/07/1997 – 02/29/2000 FY99: \$820,034 Total: \$2,101,386 <i>Prin. Invest.:</i> L MCINTIRE <i>Tech. Officer:</i> GSFC/L CHAMBERS <i>CASE Category:</i> 59 – LIFE SCIENCE, OTHER</p>	<p>NAG 5 7037 RICE UNIVERSITY 8549 SOLAR WIND INTERACTION AT VENUS TO MARS, INCLUDING THE MAG- NETIC EFFECTS OF THE MARTIAN CRUSTAL MAGN 02/20/1998 – 02/29/2000 FY99: \$50,520 Total: \$99,498 <i>Prin. Invest.:</i> P A CLOUTIER <i>Tech. Officer:</i> GSFC/M H ACUNA <i>CASE Category:</i> 13 – PHYSICS</p>
<p>NAG 5 4267 RICE UNIVERSITY 8542 COMPREHENSIVE COMPUTATIONAL MODEL OF THE EARTH'S R 03/25/1997 – 05/14/2000 FY99: \$80,381 Total: \$153,886 <i>Prin. Invest.:</i> D A WOLF <i>Tech. Officer:</i> GSFC/J BOHLIN <i>CASE Category:</i> 13 – PHYSICS</p>	<p>NAG 5 7041 RICE UNIVERSITY 8550 A VECTOR POTENTIAL MODEL FOR MARTIAN CRUSTAL MAGNETIC ANOM- ALIES 03/02/1998 – 02/29/2000 FY99: \$0 Total: \$68,051 <i>Prin. Invest.:</i> P A CLOUTIER <i>Tech. Officer:</i> GSFC/M H ACUNA <i>CASE Category:</i> 13 – PHYSICS</p>
<p>NAG 5 4726 RICE UNIVERSITY 8543 DEVELOPMENT AND APPLICATIONS OF A MODULAR MODEL OF MAGNETO- SPHERE 06/19/1997 – 05/14/2000 FY99: \$140,660 Total: \$268,344 <i>Prin. Invest.:</i> D R TOFFOLETTO <i>Tech. Officer:</i> GSFC/D EVANS <i>CASE Category:</i> 13 – PHYSICS</p>	<p>NAG 5 7642 RICE UNIVERSITY 8551 XTE PROPOSAL-ECHO TOMOGRAPHY OF LOW MASS X-RAY BINARIES 08/27/1998 – 08/31/1998 FY99: \$0 Total: \$2,243 <i>Prin. Invest.:</i> R H GOMER <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 – ASTRONOMY</p>
<p>NAG 5 4822 RICE UNIVERSITY 8544 THE OPEN POLAR CAP: COMPARISON OF POLAR IMAGES WI 06/17/1997 – 09/30/1999 FY99: \$0 Total: \$188,000 <i>Prin. Invest.:</i> D W HILL <i>Tech. Officer:</i> GSFC/J GREBOWSKY <i>CASE Category:</i> 13 – PHYSICS</p>	<p>NAG 5 7980 RICE UNIVERSITY 8552 MODELING BATSE GAMMA-RAY BURST CONTINUUM SPECTRA AND SPEC- TRAL EVOLUTION 01/19/1999 – 01/14/2000 FY99: \$20,000 Total: \$20,000 <i>Prin. Invest.:</i> E P LIANG <i>Tech. Officer:</i> GSFC/J P NORRIS <i>CASE Category:</i> 11 – ASTRONOMY</p>

NAG 5 8131 **RICE UNIVERSITY** **8553**
 NUMERICAL SIMULATION OF ROTATION-DRIVEN PLASMA TRANSPORT IN
 THE JOVIAN MAGNETOSPHERE
 01/28/1999 - 01/31/2000 FY99: \$69,371 Total: \$69,371
Prin. Invest.: D W HILL
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 8136 **RICE UNIVERSITY** **8554**
 "COMPREHENSIVE QUANTITATIVE MODEL OF INNER-MAGNETOSPHERE
 DYNAMICS."
 01/29/1999 - 01/31/2000 FY99: \$150,000 Total: \$150,000
Prin. Invest.: R A WOLF
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 8380 **RICE UNIVERSITY** **8555**
 DATA ANALYSIS FOR POLAR MAGNETIC FIELD EXPERIMENT
 04/26/1999 - 02/29/2000 FY99: \$32,500 Total: \$32,500
Prin. Invest.: P REIFF
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1232 **RICE UNIVERSITY** **8556**
 RESEARCH, NOVEL NONLINEAR OPTICAL POLYDIACETYLENES POS-
 SESSING LIQUID CRYSTALLINE PROPERTIES
 09/20/1996 - 09/19/1998 FY99: -\$23 Total: \$14,960
Prin. Invest.: N HALES, W E BILLUPS
Tech. Officer: MSFC/D O FRAZIER, MSFC/B O PENN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1444 **RICE UNIVERSITY** **8557**
 A QUANTUM DEGENERATE FERMI GAS OF 6Li ATOMS
 02/11/1998 - 01/31/2001 FY99: \$75,000 Total: \$132,000
Prin. Invest.: R G HULET
Tech. Officer: MSFC/D HUBBARD
CASE Category: 13 - PHYSICS

NAG 8 1467 **RICE UNIVERSITY** **8558**
 INFLUENCE OF REDUCED GRAVITY CONDITIONS ON THE OPTIMIZED
 GROWTH AND DEPOSITION OF METAL NANOSHELL
 03/06/1998 - 01/31/2002 FY99: \$62,834 Total: \$106,167
Prin. Invest.: N J HALAS
Tech. Officer: MSFC/C L TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 929 **RICE UNIVERSITY** **8559**
 EVALUATION OF ADVANCED MATERIALS FOR HYPERVELOCITY IMPACT
 SHIELDING PHASE I
 05/20/1997 - 01/30/2000 FY99: \$94,710 Total: \$160,756
Prin. Invest.: Y C ANGEL
Tech. Officer: JSC/J L CREWS
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NAG 9 948 **RICE UNIVERSITY** **8560**
 ANALYTICAL MODELING OF A CRYOGENIC TANK
 07/07/1997 - 12/30/1999 FY99: \$22,999 Total: \$149,952
Prin. Invest.: Y BAYAZITOGLU
Tech. Officer: JSC/T A PETERS
CASE Category: 46 - MECHANICAL ENGR

NAG 9 978 **RICE UNIVERSITY** **8561**
 DEVELOPMENT OF PLASMA INJECTOR FOR VSIPR
 10/17/1997 - 09/30/1999 FY99: \$0 Total: \$70,412
Prin. Invest.: A A CHAN
Tech. Officer: JSC/F CHANG-DIAZ
CASE Category: 13 - PHYSICS

NAG 9 1049 **RICE UNIVERSITY** **8562**
 LASER ABSORPTION SENSORS
 08/04/1998 - 08/05/1999 FY99: \$99,884 Total: \$149,884
Prin. Invest.: F K TITTLE
Tech. Officer: JPL/D L JAN
CASE Category: 45 - ELECTRICAL ENGR

NAG 9 1059 **RICE UNIVERSITY** **8563**
 COMPUTATIONAL METHODS
 12/14/1998 - 12/15/1999 FY99: \$36,558 Total: \$36,558
Prin. Invest.: T E TEZDUYAR
Tech. Officer: JSC/F MARTIN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4173 **RICE UNIVERSITY** **8564**
 GEOCHEMISTRY AND COSMOCHEMISTRY OF FULLERENES
 10/18/1994 - 06/30/1998 FY99: \$0 Total: \$14,976
Prin. Invest.: D HEYMANN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAGW 4635 **RICE UNIVERSITY** **8565**
 A PROCESS LEVEL STUDY OF METHANE EMISSIONS FROM RICE FIELDS
 07/31/1995 - 10/31/1998 FY99: -\$617 Total: \$369,663
Prin. Invest.: R L SASS, F M FISHER
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4685 **RICE UNIVERSITY** **8566**
 WORKSHOPS ON REGIONAL ASSESSMENT OF TRACE
 08/16/1995 - 06/30/1998 FY99: \$0 Total: \$30,000
Prin. Invest.: R L SASS
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 3 97017 **RICE UNIVERSITY** **8567**
 NRA-INTERFACIAL CONTROL OF HIGH TEMPERATURE FIBER/MATRIX
 COMPOSITES VIA NOVEL PRECURSOR CHEMISTRY
 11/27/1996 - 11/26/1998 FY99: \$0 Total: \$147,817
Prin. Invest.: A R BARRON, D L CALLAHAN
Tech. Officer: GRC/S FARMER
CASE Category: 12 - CHEMISTRY

NAS 9 19553 **RICE UNIVERSITY** **8568**
 COMPACT MID-INFRARED LASER BASED SENSORS FOR TRACE GAS
 DETECTION
 06/01/1996 - 06/30/1999 FY99: \$61 Total: \$330,943
Prin. Invest.: F TITTLE
Tech. Officer: JSC/H E DAVIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NASA'S UNIVERSITY PROGRAM

TEXAS

NCC 1 234	RICE UNIVERSITY	8569			
AUTOMATED ADJOINT GENERATION MY 1/3					
07/03/1996 – 11/30/1998	FY99: \$0		Total: \$173,940		
Prin. Invest.: A CARLE					
Tech. Officer: LARC/L L GREEN					
CASE Category: 29 – MATH/COMPUTER SCI, OTHER					
NCC 1 236	RICE UNIVERSITY	8570			
INCREMENTAL ITERATIVE SENSITIVITIES FOR PVM- OVERFLOW					
07/17/1996 – 07/16/1998	FY99: -\$2		Total: \$49,978		
Prin. Invest.: A CARLE, M FAGAN					
Tech. Officer: LARC/L L GREEN					
CASE Category: 29 – MATH/COMPUTER SCI, OTHER					
NCC 2 5199	RICE UNIVERSITY	8571			
ORION NEBULA AND PLANETARY NEBULAE					
12/19/1996 – 08/31/1998	FY99: -\$1		Total: \$14,518		
Prin. Invest.: R J DUFOUR					
Tech. Officer: ARC/D GOORVITCH					
CASE Category: 11 – ASTRONOMY					
NCC 5 311	RICE UNIVERSITY	8572			
MUSEUMS TEACHING PLANET EARTH(UTPE)					
04/11/1998 – 02/28/2001	FY99: \$610,000		Total: \$903,000		
Prin. Invest.: P REIFF					
Tech. Officer: GSFC/A TUYAHOV					
CASE Category: 99 – MULTI INTERDISCIPL, OTHER					
NCC 9 77	RICE UNIVERSITY	8573			
ADVANCED NANOTECHNOLOGY MATERIALS AND APPLICATIONS					
10/29/1998 – 10/29/2002	FY99: \$400,000		Total: \$400,000		
Prin. Invest.: R C SMALLEY					
Tech. Officer: JSC/G K HORIUCHI					
CASE Category: 12 – CHEMISTRY					
NGT 51230	RICE UNIVERSITY	8574			
GRADUATE STUDENT RESEARCHERS PROGRAM					
08/08/1994 – 09/15/1998	FY99: \$0		Total: \$66,000		
Prin. Invest.: A J MEADE, JR					
Tech. Officer: JSC/SGOLDSTEIN					
CASE Category: 46 – MECHANICAL ENGR					
NGT 51376	RICE UNIVERSITY	8575			
GRADUATE STUDIES RESEARCHERS PROGRAM					
06/26/1995 – 07/14/1998	FY99: \$1,133		Total: \$45,133		
Prin. Invest.: D HEYMANN					
Tech. Officer: HQ/D HOLLAND					
CASE Category: 32 – GEOLOGICAL SCIENCE					
NGT 1 52215	RICE UNIVERSITY	8576			
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)					
06/01/1999 – 06/30/2000	FY99: \$22,000		Total: \$22,000		
Prin. Invest.: S M KELLOGG, S S CULLIS					
Tech. Officer: LARC/P J HALEY, LARC/R JOSLIN					
CASE Category: 41 – AERONAUTICAL ENGR					
NGT 2 52252	RICE UNIVERSITY	8577			
MULTIWAVELENGTH STUDIES OF WOLF-RAYET GALAXIES					
09/30/1998 – 09/30/2000	FY99: \$44,000		Total: \$44,000		
Prin. Invest.: D J DUFOUR					
Tech. Officer: ARC/D J HOLLENBACH					
CASE Category: 11 – ASTRONOMY					
NGT 5 34	RICE UNIVERSITY	8578			
THE SOLAR WIND INTERACTION WITH THE MARTIAN ATMOSPHERE					
07/24/1996 – 08/31/1999	FY99: \$0		Total: \$66,000		
Prin. Invest.: P A CLOUTIER					
Tech. Officer: GSFC/G A SOFFEN, GSFC/M ACUNA					
CASE Category: 11 – ASTRONOMY					
NGT 5 50057	RICE UNIVERSITY	8579			
THE COMPOSITION AND GEOLOGIC SETTING OF LUNAR FAR					
07/28/1997 – 07/14/1998	FY99: -\$6,369		Total: \$15,631		
Prin. Invest.: D LEEMAN					
Tech. Officer: HQ/A NURRIDIN					
CASE Category: 99 – MULTI INTERDISCIPL, OTHER					
NGT 5 50119	RICE UNIVERSITY	8580			
DATA ANALYSIS IN SUPPORT OF GLOBAL GEOSPACE SCIENCE					
09/06/1997 – 06/30/1998	FY99: -\$226		Total: \$21,774		
Prin. Invest.: P H REIFF					
Tech. Officer: HQ/A NURRIDIN					
CASE Category: 99 – MULTI INTERDISCIPL, OTHER					
NGT 8 52814	RICE UNIVERSITY	8581			
GRAD STUDENT RESEARCHERS PROGRAM					
07/25/1996 – 06/30/1999	FY99: \$0		Total: \$64,167		
Prin. Invest.: A W CRIPER					
Tech. Officer: MSFC/G FISHMAN					
CASE Category: 13 – PHYSICS					
NGT 8 52834	RICE UNIVERSITY	8582			
GRADUATE STUDENT RESEARCHERS PROGRAM FOR DONNA DEMPSEY					
09/26/1996 – 06/30/1999	FY99: \$0		Total: \$64,167		
Prin. Invest.: T W HILL					
Tech. Officer: MSFC/T MOORE					
CASE Category: 13 – PHYSICS					
NGT 9 19	RICE UNIVERSITY	8583			
NOVEL LASER BASED GAS SENSORS FOR TRAVE GAS DETECTION IN A SPACECRAFT HABITAT					
08/23/1999 – 06/30/2000	FY99: \$22,000		Total: \$22,000		
Prin. Invest.: F K TITTEL					
Tech. Officer: JSC/J C GRAF					
CASE Category: 54 – ENVIRONMENTAL BIOLOGY					
NGT 9 23	RICE UNIVERSITY	8584			
UNDERSTANDING PROPERTIES OF NANOTUBE REINFORCED ...					
05/30/1997 – 06/30/2000	FY99: \$22,000		Total: \$66,000		
Prin. Invest.: E V BARRERA					
Tech. Officer: JSC/B FILES					
CASE Category: 49 – ENGINEERING, OTHER					
NGT 8 52875	SAINT MARY'S UNIVERSITY-SAN ANTONIA	8585			
"KIT FOR EXTERNAL REPAIR OF MODULE IMPACTS ADHESIVE FLOW PERFORMANCE STUDY"					
07/28/1999 – 08/13/2001	FY99: \$22,000		Total: \$22,000		
Prin. Invest.: R MORAS					
Tech. Officer: MSFC/J DOWDY					
CASE Category: 42 – ASTRONAUTICAL ENGR					

<p>NAG 9 975 SAN ANTONIO COLLEGE 8586 SPACE AND GEOSCIENCE PROJECT 09/25/1997 - 08/31/1999 FY99: \$163,850 Total: \$390,367 Prin. Invest.: C GONZALEZ Tech. Officer: JSC/L ARMENDARIZ CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p>NCC 1 324 SOUTHWEST TEXAS STATE UNIVERSITY 8594 LOW DIELECTRIC POLYMERS 12/08/1998 - 11/30/1999 FY99: \$69,872 Total: \$69,872 Prin. Invest.: P E CASSIDY, M BLANDA Tech. Officer: LARC/A K ST. CLAIR, LARC/D M STOAKLEY CASE Category: 12 - CHEMISTRY</p>
<p>NAG 5 4562 SOUTHERN METHODIST UNIVERSITY 8587 CORONAE AND CHASMA: IMPLICATIONS FOR TERRRESTRIAL 05/29/1997 - 05/14/2001 FY99: \$100,208 Total: \$188,116 Prin. Invest.: D L HANSEN Tech. Officer: GSFC/P ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE</p>	<p>NCC 9 54 SOUTHWEST TEXAS STATE UNIVERSITY 8595 ORAL HISTORY RESEARCH PROJECT 03/01/1999 - 09/30/1999 FY99: \$16,779 Total: \$16,779 Prin. Invest.: K MARGERISON Tech. Officer: JSC/W A LARSEN CASE Category: 73 - HISTORY</p>
<p>NAG 5 4609 SOUTHERN METHODIST UNIVERSITY 8588 TETONIC EVOLUTION OF PLANET SURFACES 05/19/1997 - 05/14/2000 FY99: \$22,000 Total: \$64,435 Prin. Invest.: D L HANSEN Tech. Officer: GSFC/P ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE</p>	<p>NAG 1 1753 TEXAS A&M UNIVERSITY 8596 APPLICATION OF ARTIFICIAL NEURAL NETWORKS FOR THE CALIBRATION OF 5-HOLE PROBE 09/18/1995 - 11/17/1998 FY99: -\$277 Total: \$94,639 Prin. Invest.: D K REDINIOTIS Tech. Officer: LARC/W L SELLERS, III CASE Category: 41 - AERONAUTICAL ENGR</p>
<p>NAS 1 99100 SOUTHERN METHODIST UNIVERSITY 8589 UNCOOLED YTTRIUM BARIUM COPPER OXIDE THERMAL DETECTORS FOR ADVANCED BROAD BAND IR AND FIR 09/27/1999 - 09/26/2000 FY99: \$50,180 Total: \$50,180 Prin. Invest.: Z CELIK-BUTLER, D BUTLER Tech. Officer: LARC/E KIST, JR. CASE Category: 45 - ELECTRICAL ENGR</p>	<p>NAG 1 1784 TEXAS A&M UNIVERSITY 8597 A PROGRESSIVE DAMAGE MODEL FOR LAMINATED COMPOSITE SUB- JECTED TO FATIGUE LOADING 12/18/1995 - 12/31/1998 FY99: -\$2,674 Total: \$106,941 Prin. Invest.: D H ALLEN Tech. Officer: LARC/I S RAJU, LARC/C C POE, JR. CASE Category: 49 - ENGINEERING, OTHER</p>
<p>NAG 9 1019 SOUTHWEST TEXAS JUNIOR COLLEGE 8590 PRECOLLEGE AWARD FOR EXCELLENCE PACE/MSET 05/28/1998 - 08/31/2000 FY99: \$99,676 Total: \$199,676 Prin. Invest.: A HERNANDEZ, JR. Tech. Officer: JSC/L ARMENDARIZ CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p>NAG 1 1896 TEXAS A&M UNIVERSITY 8598 OBSERVATIONAL AND MODELING STUDIES OF TRANSPORT AND MIXING IN THE STRATOSPHERE AND TROPOSPHERE 02/21/1997 - 01/31/2000 FY99: \$72,000 Total: \$220,929 Prin. Invest.: K P BOWMAN Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p>NAG 1 631 SOUTHWEST TEXAS STATE UNIVERSITY 8591 TRIFLUOROMETHYL - SUBSTITUTED POLYIMIDINES 01/14/1986 - 01/14/1998 FY99: -\$1 Total: \$551,411 Prin. Invest.: P E CASSIDY Tech. Officer: LARC/A K ST CLAIR, LARC/D M STOAKLEY CASE Category: 12 - CHEMISTRY</p>	<p>NAG 1 1950 TEXAS A&M UNIVERSITY 8599 DIGITAR: A LOW COST STAR TRACKER FOR MICRO- SPACECRAFT 06/30/1997 - 12/15/1998 FY99: -\$4,699 Total: \$145,301 Prin. Invest.: T C POLLOCK, J L JUNKIS Tech. Officer: LARC/J JUANG, LARC/M R KOCK CASE Category: 42 - ASTRONAUTICAL ENGR</p>
<p>NAG 8 1367 SOUTHWEST TEXAS STATE UNIVERSITY 8592 A NASA/UNIVERSITY JOINT VENTURE IN SPACE SCIENCE (JOVE). PRO- VIDES 1ST YEAR FUNDING 05/28/1997 - 08/31/2000 FY99: \$0 Total: \$23,557 Prin. Invest.: S F TARSITANO Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>	<p>NAG 2 1340 TEXAS A&M UNIVERSITY 8600 ADAPTATIONS OF VISCERAL & CEREBRAL RESISTANCE ARTICLES TO SIM- ULATED MICROGRAVITY 07/16/1999 - 01/14/2000 FY99: \$86,439 Total: \$86,439 Prin. Invest.: M D DELP Tech. Officer: ARC/M M AVERNER, ARC/R MACELROY CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>
<p>NCC 1 269 SOUTHWEST TEXAS STATE UNIVERSITY 8593 LOW DIELECTRIC POLYMER 12/08/1997 - 12/07/1998 FY99: \$0 Total: \$84,672 Prin. Invest.: P E CASSIDY, J W FITCH Tech. Officer: LARC/A K ST. CLAIR, LARC/D M STOAKLEY CASE Category: 12 - CHEMISTRY</p>	<p>NAG 3 1980 TEXAS A&M UNIVERSITY 8601 LOCAL HEAT TRANSFER DISTRIBUTIONS ROTATING MULTIPASS PASSAGES IN TURBINE AIRFOILS W/WO FILM EJECTION 11/01/1996 - 07/31/1999 FY99: \$23,310 Total: \$172,411 Prin. Invest.: S C LAU Tech. Officer: GRC/S A HIPPENSTEELE CASE Category: 46 - MECHANICAL ENGR</p>

NAG 3 1989 **TEXAS A&M UNIVERSITY** **8602**
 FAIL SAFE MAGNETIC BEARING DEVELOPMENT
 11/15/1996 – 10/31/1999 FY99: \$70,000 Total: \$190,059
Prin. Invest.: A B PALAZZOLO
Tech. Officer: GRC/G T MONTAGUE
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1990 **TEXAS A&M UNIVERSITY** **8603**
 COMPUTATIONAL SOFTWARE FOR MAGNETIC BEARING SYSTEM DEVELOPMENT
 11/15/1996 – 02/29/2000 FY99: \$64,000 Total: \$147,202
Prin. Invest.: A B PALAZZOLO
Tech. Officer: GRC/G T MONTAGUE
CASE Category: 46 – MECHANICAL ENGR

NAG 3 2002 **TEXAS A&M UNIVERSITY** **8604**
 TURBINE BLADE TIP HEAT TRANSFER & FILM COOLING STUDY USING A TRANSIENT LIQUID CRYSTAL IMAGE METHOD
 01/21/1997 – 12/30/1999 FY99: \$101,941 Total: \$233,696
Prin. Invest.: J C HAN, S V EKKAD
Prin. Invest.: NONE
Tech. Officer: GRC/R J BOYLE
CASE Category: 41 – AERONAUTICAL ENGR

NAG 4 106 **TEXAS A&M UNIVERSITY** **8605**
 R&D OF AN INTEGRATED CIRCUIT IMPLEMENTATION OF SIGNAL CONDITIONING A/C FOR SIMULTANEOUS MEASURE.
 03/15/1996 – 08/31/1999 FY99: \$14,006 Total: \$108,346
Prin. Invest.: S EMBABI
Tech. Officer: DFRCA PARKER, JR.
CASE Category: 45 – ELECTRICAL ENGR

NAG 5 673 **TEXAS A&M UNIVERSITY** **8606**
 INVESTIGATION OF BALLOON MATERIAL PROPERTIES EXPOSED TO THE LOW EARTH ORBIT ENVIRONMENT
 10/19/1990 – 03/31/1998 FY99: -\$390 Total: \$259,166
Prin. Invest.: T W STRGANAC
Tech. Officer: GSFC/I S SMITH, GSFC/H C NEEDLEMAN
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 5 1569 **TEXAS A&M UNIVERSITY** **8607**
 VALIDATION AND TRANSFERABILITY OF TROPICAL RAIN ESTIMATION METHODS
 05/13/1991 – 09/30/1997 FY99: -\$24 Total: \$1,478,403
Prin. Invest.: E ZIPSER
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3754 **TEXAS A&M UNIVERSITY** **8608**
 SKELETAL MUSCLE ARTERIOLAR ADAPTATIONS TO STIMULATION
 11/22/1996 – 11/14/1999 FY99: \$0 Total: \$223,669
Prin. Invest.: M D DELP
Tech. Officer: GSFC/M A SHEPANAK
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 3966 **TEXAS A&M UNIVERSITY** **8609**
 CHARACTERIZATION OF THE SPATIAL-TEMPORAL VARIABILITY BY REMOTE SENSING
 03/03/1997 – 06/30/1999 FY99: \$0 Total: \$95,000
Prin. Invest.: J B VALDES
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4746 **TEXAS A&M UNIVERSITY** **8610**
 MICROWAVE RADIOMETER AND MULTI-INSTRUMENT ALGORITHM
 06/26/1997 – 06/30/2000 FY99: \$62,000 Total: \$288,000
Prin. Invest.: T T WILHEIT
Tech. Officer: GSFC/O A THIELE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4753 **TEXAS A&M UNIVERSITY** **8611**
 STATISTICAL SAMPLING AND ESTIMATION PROBLEMS USING
 06/27/1997 – 06/30/2000 FY99: \$70,000 Total: \$277,545
Prin. Invest.: G R NORTH
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4776 **TEXAS A&M UNIVERSITY** **8612**
 VALIDATION AND ESTIMATES OF TROPICAL RAIN AND DIAB
 06/27/1997 – 06/30/2000 FY99: \$178,102 Total: \$568,102
Prin. Invest.: M I BIGGERSTAFF
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4796 **TEXAS A&M UNIVERSITY** **8613**
 VALIDATION AND TRANSFERABILITY OF TROPICAL RAIN
 08/22/1997 – 09/30/2000 FY99: -\$105,178 Total: \$391,129
Prin. Invest.: E ZIPSER
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6444 **TEXAS A&M UNIVERSITY** **8614**
 ON THE SPACE-TIME ORGANIZATION OF SOIL MOISTURE FIELDS: DYNAMICS & INTERACTION WITH THE ATMOSPHERE
 10/31/1997 – 02/05/1999 FY99: -\$76,782 Total: \$0
Prin. Invest.: I RODRIGUEZ
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6446 **TEXAS A&M UNIVERSITY** **8615**
 WORLD OCEAN CIRCULATION EXPERIMENT: SUPPORT FOR THE U.S. WOCE OFFICE
 11/25/1997 – 12/31/2000 FY99: \$125,000 Total: \$250,000
Prin. Invest.: W D NOWLIN
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6481 **TEXAS A&M UNIVERSITY** **8616**
 A DISTRIBUTED ENVIRONMENTAL DATA SERVER
 11/18/1997 – 09/30/1999 FY99: \$0 Total: \$270,691
Prin. Invest.: D P BOWMAN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6566 **TEXAS A&M UNIVERSITY** **8617**
 MUTUAL INTERACTION OF SOIL MOISTURE AND CLIMATE DYNAMICS
 11/04/1997 – 01/31/1999 FY99: -\$7,667 Total: \$28,333
Prin. Invest.: I RODRIGUEZ
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6588 TEXAS A&M UNIVERSITY 8618
 DETERMINATION OF OCEAN COLOR PROVINCES IN THE NORTH ATLANTIC
 10/31/1997 - 10/31/1998 FY99: -\$21,376 Total: \$0
Prin. Invest.: N TINDALE
Tech. Officer: GSFC/J YODER
CASE Category: 33 - OCEANOGRAPHY

NAG 5 7751 TEXAS A&M UNIVERSITY 8619
 DOES SOUTHERN OCEAN SEA ICE AFFECT INTERANNUAL OCEAN VARIABILITY
 11/19/1998 - 12/31/2001 FY99: \$62,194 Total: \$62,194
Prin. Invest.: A STOESEL
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8706 TEXAS A&M UNIVERSITY 8620
 NOX PRODUCTION BY LIGHTNING AND ITS IMPACT ON THE CHEMISTRY OF THE UPPER TROPOSPHERE AND LOWER STRATOSPHERE
 07/19/1999 - 08/31/2000 FY99: \$98,092 Total: \$98,092
Prin. Invest.: R ZHANG
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1343 TEXAS A&M UNIVERSITY 8621
 FOR RESEARCH "ACTIVE VIBRATION CONTROL SYSTEM DEVELOPMENT FOR MICROGRAVITY ISOLATION"
 04/14/1997 - 02/28/1999 FY99: \$8,130 Total: \$38,130
Prin. Invest.: A B PALAZZOLO
Tech. Officer: MSFC/M S WHORTON, MSFC/D C ALHORN
CASE Category: 46 - MECHANICAL ENGR

NAG 8 1395 TEXAS A&M UNIVERSITY 8622
 R/S "BULK FLOW ANALYSIS OF HYBRID THRUST BEARINGS FOR ADVANCED CRYOGENIC TURBOPUMPS"
 07/21/1997 - 05/31/1999 FY99: \$37,464 Total: \$73,464
Prin. Invest.: L SAN ANDREAS
Tech. Officer: MSFC/R THOM
CASE Category: 41 - AERONAUTICAL ENGR

NAG 8 1491 TEXAS A&M UNIVERSITY 8623
 INTENSITY AND ORGANIZATION OF CONVECTION IN HURRICANES AND TROPICAL CYCLONES BEFORE AND AFTER
 01/30/1998 - 02/01/2000 FY99: \$52,541 Total: \$101,937
Prin. Invest.: E J ZIPSER
Tech. Officer: MSFC/J ARNOLD, MSFC/R K KAKAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1618 TEXAS A&M UNIVERSITY 8624
 R&D OF HIGH GAIN, HIGH EFFICIENCY, CIRCULAR POLARIZED RECTENNAS
 07/06/1999 - 03/31/2000 FY99: \$150,000 Total: \$150,000
Prin. Invest.: K CHANG
Tech. Officer: MSFC/J HOWELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 331 TEXAS A&M UNIVERSITY 8625
 SPACE RADIATION/MATERIALS/DEVICES
 01/15/1989 - 03/01/1999 FY99: \$0 Total: \$484,412
Prin. Invest.: J S LINDER
Tech. Officer: JSC/CHERMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 807 TEXAS A&M UNIVERSITY 8626
 COMBINING THE PHOTOGRAPHY/LANDSCAPE ECOLOGY TO PRODUCE A PREDICTIVE MODEL
 08/02/1995 - 08/31/1999 FY99: \$0 Total: \$64,314
Prin. Invest.: J GIARDINO
Tech. Officer: JSC/K LULLA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 821 TEXAS A&M UNIVERSITY 8627
 NONINVASIVE NEAR INFRARED SENSOR FOR CONTINUOUS CELLULOSE MEASUREMENT
 08/11/1995 - 09/17/1999 FY99: \$0 Total: \$368,250
Prin. Invest.: G COTE
Tech. Officer: JSC/N PELLIS
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 882 TEXAS A&M UNIVERSITY 8628
 PERFORMANCE ENHANCEMENTS OF HEAT TRANSFER DEVICES
 08/02/1996 - 08/01/1998 FY99: -\$259 Total: \$49,741
Prin. Invest.: J S YAGOOBI
Tech. Officer: JSC/K HURLBERT
CASE Category: 45 - ELECTRICAL ENGR

NAG 9 886 TEXAS A&M UNIVERSITY 8629
 SINGLE HIGH LINEAR TRANSFER PARTICLES TO STUDY BIOLOGICAL EFFECTS OF RADIATION IN SPACE
 07/12/1996 - 06/30/1998 FY99: -\$166 Total: \$62,834
Prin. Invest.: D BRABY
Tech. Officer: JSC/T YANG
CASE Category: 56 - MEDICAL

NAG 9 889 TEXAS A&M UNIVERSITY 8630
 HAND FORCE EXERTION CAPABILITY MODELING FOR EXTRAVEHICULAR ACTIVITIES
 07/12/1996 - 02/02/1999 FY99: \$0 Total: \$59,500
Prin. Invest.: D KERK
Tech. Officer: JSC/J MAIDA
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 893 TEXAS A&M UNIVERSITY 8631
 AEROCAM ENHANCEMENTS (EVA ROBOT CAMERA CONTROL)
 07/19/1996 - 06/30/1998 FY99: -\$1,027 Total: \$66,973
Prin. Invest.: D A VOLZ, D C TINKLE
Tech. Officer: JSC/T PENDLETON
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 9 894 TEXAS A&M UNIVERSITY 8632
 STABILITY OF 2-PHASE FLOW MANIFOLDED SYSTEMS UNDER IG AND OG CONDITIONS
 07/19/1996 - 08/31/1999 FY99: \$0 Total: \$154,982
Prin. Invest.: D LANGHANS
Tech. Officer: JSC/K HENDERSON
CASE Category: 55 - AGRICULTURE

NAG 9 931 TEXAS A&M UNIVERSITY 8633
 NASA ASEE SUMMER FACULTY FELLOWSHIP PROGRAM
 03/17/1997 - 09/30/2000 FY99: \$20,000 Total: \$509,049
Prin. Invest.: W A HYMAN, J PRITCHARD
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 1067 TEXAS A&M UNIVERSITY 8634
 PLANT GROWTH AND METABOLISM AT SUB-AMBIENT ATMOSPHERE PRES-
 SURES
 01/06/1999 - 12/31/1999 FY99: \$226,687 Total: \$226,687
Prin. Invest.: M C DREW
Tech. Officer: JSC/D BARTA
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1070 TEXAS A&M UNIVERSITY 8635
 NONINTRUSIVE METHOD FOR STIRRED SEPARATOR INVENTORY SENSING
 01/22/1999 - 02/04/2000 FY99: \$71,639 Total: \$71,639
Prin. Invest.: R WILLIAMS, F BEST, I CARSON
Tech. Officer: JSC/S D GLEN
CASE Category: 13 - PHYSICS

NAG 9 1077 TEXAS A&M UNIVERSITY 8636
 AUTONOMAUS ATTITUDE DETERMINATION FOR ISS APPLICATIONS USING
 PSUEDOLITE
 01/14/1999 - 12/22/1999 FY99: \$57,212 Total: \$57,212
Prin. Invest.: J L CRASSIDIS, NONE
Tech. Officer: JSC/J W BELL
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 9 1085 TEXAS A&M UNIVERSITY 8637
 EVALUATION OF SYMNIC INVERSION AS A FLIGHT CONTROL
 02/09/1999 - 02/16/2000 FY99: \$64,307 Total: \$64,307
Prin. Invest.: J L VALASEK, D T WARD
Tech. Officer: JSC/R M ONDLER, JSC/S R MUNDAY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 1086 TEXAS A&M UNIVERSITY 8638
 LOW THRUST VARIABLE ISP ROCKET TRAJECTORY OPTIMIZATION AND
 ANALYSIS STUDY
 02/08/1999 - 09/30/2000 FY99: \$30,000 Total: \$30,000
Prin. Invest.: S R VACLALIC
Tech. Officer: JSC/E M BRADEN
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 9 1119 TEXAS A&M UNIVERSITY 8639
 STABILITY OF RETORT PROCESSED MILK PRODUCTS
 07/01/1999 - 06/30/2000 FY99: \$60,000 Total: \$60,000
Prin. Invest.: R L RICHTER
Tech. Officer: JSC/C T BOURLAND
CASE Category: 55 - AGRICULTURE

NAG 9 1145 TEXAS A&M UNIVERSITY 8640
 SEPARATION OF LIQUID PHASE FR GAS PHASE
 09/09/1999 - 09/08/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: J SEYED-YAGOOBI, F R BEST
Tech. Officer: JSC/E K UNGAR
CASE Category: 46 - MECHANICAL ENGR

NAGW 1194 TEXAS A&M UNIVERSITY 8641
 CENTER FOR THE COMMERCIAL DEVE. OF SPACE POWER
 09/30/1987 - 10/31/1998 FY99: \$0 Total: \$10,643,300
Prin. Invest.: F R BEST, D R BOYLE
Tech. Officer: HQ/C LIVINGSTON, HQ/V CEVENINI
CASE Category: 45 - ELECTRICAL ENGR

NAGW 4189 TEXAS A&M UNIVERSITY 8642
 CHARACTERIZATION OF THE SPATIAL-TEMPORAL VARIABILITY OF SOIL
 MOISTURE BY REMOTE SENSING
 11/04/1994 - 12/31/1997 FY99: -\$640 Total: \$186,335
Prin. Invest.: J B VALDES
Tech. Officer: HQ/M Y WEI, HQ/J S THEON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4766 TEXAS A&M UNIVERSITY 8643
 SPACE TIME ORGANIZATION
 09/25/1995 - 03/31/1999 FY99: \$0 Total: \$135,972
Prin. Invest.: I RODRIGUEZ-ITURBE, D ENTEKHABI
Tech. Officer: HQ/M Y WEI, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 32593 TEXAS A&M UNIVERSITY 8644
 STUDY ENTITLED MIMR SCIENCE TEAM MEMBERSHIP
 12/15/1993 - 12/31/2000 FY99: \$161,000 Total: \$832,013
Prin. Invest.: T T WILHEIT
Tech. Officer: GSFC/P HWONG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 9 97002 TEXAS A&M UNIVERSITY 8645
 TEXAS A & M LOW-SPEED WIND TUNNEL (LSWT) TESTING
 04/02/1997 - 04/02/2000 FY99: \$4,186 Total: \$113,443
Prin. Invest.: J L MARTINEZ
Tech. Officer: JSC/S G LABBE, JSC/C J CERIMELE
CASE Category: 41 - AERONAUTICAL ENGR

NAS 9 99096 TEXAS A&M UNIVERSITY 8646
 PROPORTIONAL COUNTERS FOR NEUTRON MEASUREMENTS
 08/17/1999 - 05/31/2000 FY99: \$117,096 Total: \$117,096
Prin. Invest.: L A BRABY
Tech. Officer: JSC/G D BRADHWAR
CASE Category: 41 - AERONAUTICAL ENGR

NASW 4679 TEXAS A&M UNIVERSITY 8647
 NASW-4679/TX ENG'G EXPERIMENT STATION/NASA RTTC LOCATED IN THE
 MID-CONTINENT REGION OF THE U.S.
 05/24/1995 - 08/31/1999 FY99: \$0 Total: \$6,877,019
Prin. Invest.: G SERA
Tech. Officer: HQ/F E PEWARANDA
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 3 516 TEXAS A&M UNIVERSITY 8648
 THE CENTER FOR SPACE POWER
 11/26/1996 - 11/03/2001 FY99: \$887,000 Total: \$2,587,001
Prin. Invest.: F R BEST
Tech. Officer: GRC/J E CALOGERAS, GRC/R L SOVIE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 3 602 TEXAS A&M UNIVERSITY 8649
 THERMAL CONTROL AND ENHANCEMENT OF HEAT TRANSPORT CAPACITY
 OF CRYOGENICS CAPILLARY PUMPED LOOPS AND
 03/20/1998 - 01/28/2002 FY99: \$70,342 Total: \$134,711
Prin. Invest.: J SEYED-YAGOOBI, J M OCHTERBECK, J 3 BYRAN
Tech. Officer: GRC/F P CHIARAMONTE
CASE Category: 46 - MECHANICAL ENGR

NCC 4 111 **TEXAS A&M UNIVERSITY** **8650**
 MULTIREOLUTION & TIME-FREQUENCY CHARACTERIZATIONS OF NON-
 LINEAR DYNAMICS IN AEROELASTIC & AERO SYS
 04/09/1997 - 11/30/1998 FY99: \$0 Total: \$50,000
Prin. Invest.: T W STRGANAC, A KURDILA
Tech. Officer: DFRM/BRENNER
CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 359 **TEXAS A&M UNIVERSITY** **8651**
 MISSION GEOGRAPHY
 08/24/1998 - 07/31/2001 FY99: \$307,150 Total: \$557,950
Prin. Invest.: S BEDNARZ
Tech. Officer: HQ/P MOUNTJPOY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 169 **TEXAS A&M UNIVERSITY** **8652**
 R/S INVESTIGATION OF NEURONAL PHYSIOLOGY IN SIMULATED
 MICROGRAVITY USING SMART FLUORESCENT ...
 03/12/1999 - 11/30/2002 FY99: \$101,000 Total: \$101,000
Prin. Invest.: G COTE
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 8 177 **TEXAS A&M UNIVERSITY** **8653**
 TWO-PHASE, PACKAGED BED WEIGHTLESS TESTING
 02/09/1999 - 02/08/2000 FY99: \$89,292 Total: \$89,292
Prin. Invest.: F R BEST
Tech. Officer: MSFC/D L CARTER
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 9 69 **TEXAS A&M UNIVERSITY** **8654**
 NASA COMMERCIAL SPACE TO ADOVOCATE & SUPPORT COMMERCIAL
 ENGINEERING ON ISS
 05/07/1998 - 05/06/2000 FY99: \$500,000 Total: \$940,789
Prin. Invest.: D R BOYLE, M SCHULLER, FR BEST
Tech. Officer: JSC/C G PARRA, JSC/R C HAHN
CASE Category: 49 - ENGINEERING, OTHER

NGT 51229 **TEXAS A&M UNIVERSITY** **8655**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 - 04/30/1998 FY99: -\$931 Total: \$65,069
Prin. Invest.: L R HOSSNER
Tech. Officer: JSC/S GOLDSTEIN
CASE Category: 55 - AGRICULTURE

NGT 2 52213 **TEXAS A&M UNIVERSITY** **8656**
 A VISUAL OPTIMIZATION ENVIRONMENT FOR AIRCRAFT CONCEPTUAL
 DESIGN
 07/18/1996 - 08/31/1998 FY99: \$0 Total: \$44,000
Prin. Invest.: D L DARMOFAL
Tech. Officer: ARC/H MIURA, ARC/T L GALLOWAY
CASE Category: 41 - AERONAUTICAL ENGR

NGT 2 52226 **TEXAS A&M UNIVERSITY** **8657**
 IMPROVING MULTIGRID PERFORMANCE FOR NAVIER-STOKES CALCULA-
 TIONS
 08/05/1997 - 08/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: D L DARMOFAL
Tech. Officer: ARC/T H PULLIAM
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 30033 **TEXAS A&M UNIVERSITY** **8658**
 LIGHTNING AND ITS RELATIONSHIP TO 85 GHZ ICE SCATT IN THE GLOBAL
 TROPICS
 10/17/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: E ZIPSER
Tech. Officer: GSFC/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30211 **TEXAS A&M UNIVERSITY** **8659**
 HYDROLOGIC CONSEQUENCES OF SHRUB SAVANNA EXPANSION STU-
 DENT: WYLIE N. HARRIS
 08/20/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: T BOUTTON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 90005 **TEXAS A&M UNIVERSITY** **8660**
 UNDERGRADUATE STUDENT RESEARCHERS PROGRAM (USAR)
 12/30/1996 - 08/14/1998 FY99: \$0 Total: \$76,000
Prin. Invest.: W TURNER
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52815 **TEXAS A&M UNIVERSITY** **8661**
 GRAD STUDENT RESEARCHERS PROGRAM
 07/25/1996 - 06/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: J J MOORE
Tech. Officer: MSFC/P VALLELY
CASE Category: 46 - MECHANICAL ENGR

NGT 9 30 **TEXAS A&M UNIVERSITY** **8662**
 MRI SKELETAL MEASURING
 09/24/1997 - 06/30/1999 FY99: -\$15,600 Total: \$6,400
Prin. Invest.: W HYMAN, L LAWRENCE
Tech. Officer: JSC/D SICKOREZ
CASE Category: 56 - MEDICAL

NGT 9 34 **TEXAS A&M UNIVERSITY** **8663**
 KINETICS OF NITRIFICATION BY ISO TOPE DILUTION IN GROWTH OF
 WHEAT USING ZEOPONICS
 06/04/1998 - 07/01/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R W WEAVER
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 55 - AGRICULTURE

NGT 9 39 **TEXAS A&M UNIVERSITY** **8664**
 1999 SUMMER FACULTY FELLOWSHIP PROGRAM
 04/21/1999 - 01/31/2000 FY99: \$371,634 Total: \$371,634
Prin. Invest.: W A HYMAN, R BANNEROT
Tech. Officer: JSC/D SICKOREZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4699 **TEXAS A&M UNIVERSITY SYSTEM** **8665**
 GLOBAL DISTRIBUTION OF LIGHTNING FROM THE DTD AND DISTRIBUTION
 OF MCSS FROM THE SSM/I
 06/06/1997 - 03/31/1999 FY99: -\$53,948 Total: \$114,856
Prin. Invest.: E ZIPSER
Tech. Officer: GSFC/J C DODGE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7159 **TEXAS A&M UNIVERSITY-KINGSVILLE** **8666**
 SIMULATION SUPPORT FOR THE DEVELOPMENT OF GLAST
 03/16/1998 - 08/31/2000 FY99: \$33,300 Total: \$70,200
Prin. Invest.: D SUSON
Tech. Officer: GSFC/D THOMPSON
CASE Category: 13 - PHYSICS

NAG 8 1297 **TEXAS A&M UNIVERSITY-KINGSVILLE** **8667**
 PRESENTING THE SHUTTLE MAIN ENGINE
 05/16/1996 - 05/31/1998 FY99: -\$48 Total: \$57,854
Prin. Invest.: B SCHREVR
Tech. Officer: MSFC/C NOLA
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 9 682 **TEXAS A&M UNIVERSITY-KINGSVILLE** **8668**
 MINORITY EDUCATION PROGRAM K-12 OUTREACH EFFORTS
 04/02/1993 - 02/15/1999 FY99: -\$168 Total: \$392,731
Prin. Invest.: J L KIMBALL
Tech. Officer: JSC/L M ARMENDARIZ
CASE Category: 79 - SOCIAL SCIENCE, OTHER

NAG 9 1093 **TEXAS A&M UNIVERSITY-KINGSVILLE** **8669**
 DESIGN OF LOW BIT RATE SIGNAL COMPRESSOR FOR EFFICIENT
 RECORDING
 04/26/1999 - 04/30/2000 FY99: \$79,657 Total: \$79,657
Prin. Invest.: S W PARK, NONE
Tech. Officer: JSC/K L HAMES
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 7040 **TEXAS CHRISTIAN UNIVERSITY** **8670**
 CRITICAL TESTS OF STELLAR EVOLUTION (LTSA)
 03/02/1998 - 02/28/2000 FY99: \$8,300 Total: \$16,300
Prin. Invest.: P MARCUM
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 8 1356 **TEXAS CHRISTIAN UNIVERSITY** **8671**
 EXPERIMENTAL ASSESSMENT OF MULTICOMPONENT EFFECTS IN DIFFU-
 SION-DOMINATED TRANSPORT PROTEIN CRYSTAL
 05/23/1997 - 11/30/2000 FY99: \$77,000 Total: \$191,000
Prin. Invest.: J G ALBRIGHT
Tech. Officer: MSFC/B L GUYNES, MSFC/J MAYO
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 7209 **TEXAS SOUTHERN UNIVERSITY** **8672**
 CENTER OF EXCELLENCE IN APPLICATIONS OF REMOTE SENSING TO
 REGIONAL AND GLOBAL INTEGRATED ENVIRONME
 04/17/1998 - 04/14/1999 FY99: \$0 Total: \$80,000
Prin. Invest.: J JONES
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 781 **TEXAS SOUTHERN UNIVERSITY** **8673**
 HIGH ENERGY CELLS AND BATTERIES
 04/17/1995 - 05/30/1998 FY99: \$0 Total: \$600,002
Prin. Invest.: A R CHOWDHURY, M C GOURDINE
Tech. Officer: JSC/B J BRAGG
CASE Category: 45 - ELECTRICAL ENGR

NAG 9 862 **TEXAS SOUTHERN UNIVERSITY** **8674**
 MICROGRAVITY & SICKLE CELL ANEMIA
 02/29/1996 - 08/28/1998 FY99: \$0 Total: \$350,000
Prin. Invest.: D FADULA
Tech. Officer: JSC/J D ATKINSON
CASE Category: 56 - MEDICL

NAG 9 875 **TEXAS SOUTHERN UNIVERSITY** **8675**
 SOLAR PHOTOVOLTAIC REFRIGERATION EXPERIMENTATION
 07/03/1996 - 11/30/1997 FY99: -\$62 Total: \$24,938
Prin. Invest.: J HILL
Tech. Officer: JSC/M K EWERT
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 879 **TEXAS SOUTHERN UNIVERSITY** **8676**
 ENHANCE CAPABILITY FOR ENVIRONMENTAL SENSING RESEARCH AT TSU
 11/19/1996 - 12/31/1997 FY99: \$0 Total: \$150,000
Prin. Invest.: J JONES
Tech. Officer: JSC/J D ATKINSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 974 **TEXAS SOUTHERN UNIVERSITY** **8677**
 SUPPORT NASA ENVIRONMENTAL INSTITUTE
 09/25/1997 - 09/30/1999 FY99: \$0 Total: \$350,000
Prin. Invest.: J JONES
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 988 **TEXAS SOUTHERN UNIVERSITY** **8678**
 ANALYSIS OF SELECTED PLANT NUTRIENT SOLUTIONS
 03/19/1998 - 09/30/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: R F WILSON
Tech. Officer: JSC/D BARTA
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 9 1132 **TEXAS SOUTHERN UNIVERSITY** **8679**
 FIELD TESTING
 07/16/1999 - 04/16/2000 FY99: \$33,000 Total: \$33,000
Prin. Invest.: J HILL
Tech. Officer: JSC/M K EWERT
CASE Category: 46 - MECHANICAL ENGR

NCC 9 48 **TEXAS SOUTHERN UNIVERSITY** **8680**
 SOLUBLE SILICON
 10/02/1996 - 08/31/1999 FY99: \$32,550 Total: \$180,301
Prin. Invest.: O A JEJELOWO
Tech. Officer: JSC/D BARTA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 9 80 **TEXAS SOUTHERN UNIVERSITY** **8681**
 HIGH PRESSURE LABORATORY
 12/02/1998 - 11/30/1999 FY99: \$299,675 Total: \$299,675
Prin. Invest.: B L WILSON
Tech. Officer: JSC/C B AGEE
CASE Category: 12 - CHEMISTRY

NAG 9 933 **TEXAS SOUTHWEST COLLEGE** **8682**
 EDUCATION GRANT
 07/23/1997 - 08/31/1998 FY99: \$0 Total: \$135,102
Prin. Invest.: J V GARCIA
Tech. Officer: JSC/L M ARMENDARIZ
CASE Category: 21 - MATHEMATICS

NAG 9 965 **TEXAS SOUTHMOST COLLEGE** **8683**
 K-12 SCIENCE OUTREACH
 09/18/1997 - 08/01/1998 FY99: \$0 Total: \$25,000
Prin. Invest.: L V LOF
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2192 **TEXAS TECH UNIVERSITY** **8684**
 THE HEAVY OZONE PROBLEM NRA-98-OES-04
 09/28/1999 - 12/31/2002 FY99: \$50,129 Total: \$50,129
Prin. Invest.: G I GELLENE
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1077 **TEXAS TECH UNIVERSITY** **8685**
 MULTIPLEXED HOLOGRAPHIC DATA STORAGE IN BACTERIORH ODOPSIN
 08/19/1996 - 11/30/1998 FY99: \$0 Total: \$199,809
Prin. Invest.: D J MEHRL
Tech. Officer: ARC/C K GARY, ARC/M B REID
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2005 **TEXAS TECH UNIVERSITY** **8686**
 ARCJET ELECTRODE DEGRADATION RESEARCH
 01/24/1997 - 11/15/1999 FY99: \$0 Total: \$590,718
Prin. Invest.: E A O'HAIR, M KRISTIANSEN, J C DICKENS
Tech. Officer: GRC/L R PINERO
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 5156 **TEXAS TECH UNIVERSITY** **8687**
 OPTIMIZATION STUDIES FOR ACCESS CALORIMETRY INCREMENTAL FUND-
 ING FOR FIRST YEAR OF GRANT
 03/26/1998 - 12/31/1999 FY99: \$123,562 Total: \$222,562
Prin. Invest.: R WIGMANS
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NCC 2 5257 **TEXAS TECH UNIVERSITY** **8688**
 INFORMATION INTEGRATION IN JUDGEMENTS OF TEMPORAL RANGE
 03/02/1998 - 03/31/2000 FY99: \$25,000 Total: \$74,992
Prin. Invest.: P R DELUCIA
Tech. Officer: ARC/M K KAISER
CASE Category: 69 - PSYCHOLOGY, OTHER

NGT 5 50151 **TEXAS TECH UNIVERSITY** **8689**
 RE-ENGINEERING COMPUTER NETWORKS: PLANNING AND IM OGY
 09/11/1997 - 09/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: S B YADAV
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1916 **UNIV HOUSTON-HOUSTON** **8690**
 AN ADVANCED MOMENTUM WHEEL FOR MINIATURE SATELLITE
 04/18/1997 - 10/18/1998 FY99: \$1 Total: \$90,001
Prin. Invest.: W CHU
Tech. Officer: LARC/J JUANG, LARC/M R KOCH
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 2 1089 **UNIV HOUSTON-HOUSTON** **8691**
 AN EVALUATION OF COLLAGEN METABOLISM IN NON-HUMAN PRIMATES
 ASSOCIATED WITH THE BION SPACE PROGRAM...
 10/17/1996 - 02/28/1999 FY99: \$0 Total: \$209,417
Prin. Invest.: A C VAILAS, D A MARTINEZ
Tech. Officer: ARC/C M WINGET, ARC/G A JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1284 **UNIV HOUSTON-HOUSTON** **8692**
 A NON-INVASIVE ANALYSIS OF MUSCULOSKETAL COLLAGEN METABOLISM
 FROM URINE OF RHESUS MONKEYS DURING A
 01/26/1999 - 11/30/1999 FY99: \$25,000 Total: \$25,000
Prin. Invest.: A C VAILAS
Tech. Officer: ARC/R E GRINDELAND, ARC/K L SOUZA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1840 **UNIV HOUSTON-HOUSTON** **8693**
 TWO-PHASE GAS-LIQUID FLOWS IN MICROGRAVITY: EXPERIMENTAL AND
 THEORETICAL INVESTIGATION OF ANNULAR
 05/02/1996 - 05/01/2000 FY99: \$80,000 Total: \$300,000
Prin. Invest.: V BALAKOTAIAH, S JAYAWARDENA
Tech. Officer: GRC/B S MOTIL
CASE Category: 46 - MECHANICAL ENGR

NAG 5 4765 **UNIV HOUSTON-HOUSTON** **8694**
 LL CHODRITES
 06/06/1997 - 05/31/2000 FY99: \$20,000 Total: \$71,674
Prin. Invest.: D M REID
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 5126 **UNIV HOUSTON-HOUSTON** **8695**
 GROUND AND BALLOON-BORNE OBSERVATIONS OF SPRITES AND JETS
 07/02/1997 - 01/31/2000 FY99: \$119,865 Total: \$396,881
Prin. Invest.: E BERING
Tech. Officer: GSFC/E BERING
CASE Category: 13 - PHYSICS

NAG 5 7840 **UNIV HOUSTON-HOUSTON** **8696**
 WINDS, WATER BUDGETS, AND STABLE ISOTOPES IN TROPICAL
 CYCLONES USING TRMM AND QUICKSCAT
 01/06/1999 - 12/31/1999 FY99: \$52,669 Total: \$52,669
Prin. Invest.: J R LAWRENCE
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8126 **UNIV HOUSTON-HOUSTON** **8697**
 SUPERCONDUCTING COATING ON SAPPHIRE MEMBRANE—GOAL IS TO
 ATTEMPT IMPROVED STABILITY OF COATING
 02/04/1999 - 01/31/2000 FY99: \$3,600 Total: \$3,600
Prin. Invest.: C (PAUL CHU)
Tech. Officer: GSFC/J C BRASUNAS
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 8140 **UNIV HOUSTON-HOUSTON** **8698**
 THE ORIGINS OF TRANSLATION
 02/03/1999 - 01/31/2000 FY99: \$80,000 Total: \$80,000
Prin. Invest.: D FOX
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 8 1363 **UNIV HOUSTON-HOUSTON** **8699**
 "EPITAXIAL GROWTH OF PROTEIN CRYSTALS ON SELF- ASSEMBLED
 MONOLAYERS"
 06/02/1997 - 11/30/2000 FY99: \$115,000 Total: \$304,000
Prin. Invest.: J M FRIEDMAN
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 803 **UNIV HOUSTON-HOUSTON** **8700**
 SPACE RADIATION MONTE CARLO COMPUTER SIMULATION
 07/26/1995 - 12/31/1997 FY99: -\$1 Total: \$67,053
Prin. Invest.: L PINSKY
Tech. Officer: JSC/G BADHWAR
CASE Category: 13 - PHYSICS

NAG 9 853 **UNIV HOUSTON-HOUSTON** **8701**
 SOLID ABSORBENT HEAT PUMP SYSTEM
 11/14/1995 - 07/30/1998 FY99: -\$8,036 Total: \$51,382
Prin. Invest.: N SHAMSUNDAR
Tech. Officer: JSC/J D CORNWELL
CASE Category: 46 - MECHANICAL ENGR

NAG 9 867 **UNIV HOUSTON-HOUSTON** **8702**
 NASA-ASEE SUMMER FACULTY FELLOWSHIPS
 05/09/1996 - 04/30/2000 FY99: \$0 Total: \$863,000
Prin. Invest.: R B BANNEROT
Tech. Officer: JSC/D SICKOREZ
CASE Category: 46 - MECHANICAL ENGR

NAG 9 892 **UNIV HOUSTON-HOUSTON** **8703**
 DETECTION OF HIGH VOLTAGE SPACECRAFT CHARGING AND DEFECTS IN
 POWER TRANSMISSION SYSTEMS
 07/19/1996 - 03/17/1999 FY99: \$0 Total: \$59,500
Prin. Invest.: D E BORING
Tech. Officer: JSC/T JEFFCOAT
CASE Category: 45 - ELECTRICAL ENGR

NAG 9 896 **UNIV HOUSTON-HOUSTON** **8704**
 SIMULATION ON COMPRESSABLE HIGH SPEED FLOW
 08/09/1996 - 07/31/1998 FY99: -\$32 Total: \$34,968
Prin. Invest.: D E FITZGIBBON, R SANDERS
Tech. Officer: JSC/C P LI
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 904 **UNIV HOUSTON-HOUSTON** **8705**
 CHARACTERIZATION OF EXHAUST PLUME OF VARIABLE IMPULSE PLASMA
 ROCKET
 09/23/1996 - 12/31/1998 FY99: \$0 Total: \$59,500
Prin. Invest.: D BERING
Tech. Officer: JSC/F CHANG-DIAZ
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 930 **UNIV HOUSTON-HOUSTON** **8706**
 VIRTUAL ENVIRONMENT TECHNOLOGY LAB INFRASTRUCTURE ADVANCE-
 MENT
 04/01/1997 - 09/30/1998 FY99: \$0 Total: \$246,000
Prin. Invest.: R B LOFTIN
Tech. Officer: JSC/R J SAVELY
CASE Category: 22 - COMPUTER SCIENCE

NAG 9 985 **UNIV HOUSTON-HOUSTON** **8707**
 INVESTIGATE & DEVELOP ADVANCED TRAINING TECHN
 01/16/1998 - 12/31/1999 FY99: \$570,046 Total: \$1,112,172
Prin. Invest.: B LOFTIN
Tech. Officer: JSC/R SAVELY
CASE Category: 22 - COMPUTER SCIENCE

NAG 9 1012 **UNIV HOUSTON-HOUSTON** **8708**
 TWO PHASE SYSTEMS FOR MARS-G
 05/20/1998 - 05/20/2000 FY99: \$0 Total: \$49,394
Prin. Invest.: L C WHITTE
Tech. Officer: JSC/J D CORNWELL
CASE Category: 46 - MECHANICAL ENGR

NAG 9 1055 **UNIV HOUSTON-HOUSTON** **8709**
 URBAN EXPERIENCE PROGRAM
 09/22/1998 - 10/30/2000 FY99: \$36,000 Total: \$71,000
Prin. Invest.: T MINDIOLA, JR.
Tech. Officer: JSC/LARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1103 **UNIV HOUSTON-HOUSTON** **8710**
 THE SEARCH FOR MICROBIAL BIOMARKERS IN TERRESTRIAL DEPOSITS
 05/04/1999 - 03/09/2004 FY99: \$20,000 Total: \$20,000
Prin. Invest.: H S CHAFETZ
Tech. Officer: JSC/E K GIBSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 1140 **UNIV HOUSTON-HOUSTON** **8711**
 OPTIMAL CHARACTERIZATION OF THE ORBITAL DEBRIS ENVIR FROM MUL-
 TIPLE MEASMENTS
 08/15/1999 - 08/14/2000 FY99: \$32,061 Total: \$32,061
Prin. Invest.: T J HEBERT
Tech. Officer: JSC/E G STANSBERRY, JSC/J R THEALL
CASE Category: 49 - ENGINEERING, OTHER

NCC 8 127 **UNIV HOUSTON-HOUSTON** **8712**
 FOR RESEARCH "CONTINUATION OF SUPPORT FOR THE COMMERCIAL
 SPACE CENTER, SPACE VACUUM EPITAXY CTR
 01/21/1997 - 10/14/1999 FY99: \$1,000,000 Total: \$5,500,000
Prin. Invest.: J R WATKINS
Tech. Officer: MSFC/J R WATKINS
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 9 70 **UNIV HOUSTON-HOUSTON** **8713**
 UH NASA TECHNOLOGY COMMERCIALIZATION
 03/24/1998 - 03/23/2001 FY99: \$137,000 Total: \$410,000
Prin. Invest.: A V VALLAS
Tech. Officer: JSC/H L DAVIS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 2 52235 **UNIV HOUSTON-HOUSTON** **8714**
 DYNAMICS & CONTROL OF TURBULENT BOUNDARY LAYERS: FURTHER
 STUDIES
 09/15/1997 - 06/30/1998 FY99: -\$14,250 Total: \$2,250
Prin. Invest.: W SCHOPPA, F HASSAIN
Tech. Officer: ARC/K R SHARIFF
CASE Category: 41 - AERONAUTICAL ENGR

NGT 3 52314 UNIV HOUSTON-HOUSTON 8715
 GRADUATE STUDENT RESEARCHERS PROGRAM
 08/06/1996 - 08/14/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: V BALAKOTAIAH
Tech. Officer: GRC/D MONTEGANI
CASE Category: 43 - CHEMICAL ENGR

NGT 3 52356 UNIV HOUSTON-HOUSTON 8716
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT
 RESEARCH PROGRAM
 07/01/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: V BALAKOTAIAH
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50182 UNIV HOUSTON-HOUSTON 8717
 PRIMORDIAL PEPTIDE SYNTHESIS IN THE ORIGIN OF LIFE
 05/27/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: G E FOX
Tech. Officer: HQ/A NURRIDIN
CASE Category: 12 - CHEMISTRY

NAG 5 6009 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8718
 *FUNCTIONAL CORRELATES OF GENETIC EXPRESSION INDUC
 08/28/1997 - 11/30/1999 FY99: \$70,439 Total: \$244,034
Prin. Invest.: A PERACHIO
Tech. Officer: HQ/T SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 859 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8719
 SPACE MEDICINE FELLOWSHIP PROPOSAL
 06/10/1996 - 11/23/1999 FY99: \$0 Total: \$136,188
Prin. Invest.: W A WASSON
Tech. Officer: JSC/R BILLICA
CASE Category: 56 - MEDICL

NAG 9 901 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8720
 INFLUENCE OF SIMULATED MICROVITY ON YEAST CYTOSKELETON & VIR-
 ULENCE FACTORS
 08/29/1996 - 03/31/1999 FY99: -\$1,637 Total: \$28,163
Prin. Invest.: M R MCGINNIS
Tech. Officer: JSC/D L PIERSON
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAGW 4032 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8721
 COUNTERMEASURES FOR MICROGRAVITY - INDUCED MUSCLE ATROPHY
 06/06/1994 - 04/14/1998 FY99: -\$2,289 Total: \$567,711
Prin. Invest.: C A STUART
Tech. Officer: HQ/F M SULZMAN
CASE Category: 56 - MEDICL

NAGW 5064 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8722
 FUNCTIONAL CORRELATES OF GENETIC EXPRESSION INDUCED BY
 HYPERGRAVITY
 05/21/1996 - 12/30/1997 FY99: \$0 Total: \$123,082
Prin. Invest.: A A PERACHIO
Tech. Officer: HQ/V THORNE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 9 97147 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8723
 PROTEIN TURNOVER DURING SPACE FLIGHT
 02/24/1997 - 02/10/2000 FY99: \$135,000 Total: \$330,000
Prin. Invest.: A FERRANDO
Tech. Officer: JSC/A LEE
CASE Category: 56 - MEDICL

NAS 9 98138 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8724
 SMALL PAYLOAD EXPERIMENT
 10/28/1998 - 10/27/2001 FY99: \$95,000 Total: \$95,000
Prin. Invest.: M MCGINNIS
Tech. Officer: JSC/C HAVEN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 8 170 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8725
 R/S DIFFERENTIATION OF 3 DIMENSIONAL CO-CULTURES OF MYOFIBRO-
 BLASTS, PRENEOPLASTIC
 03/23/1999 - 11/30/2002 FY99: \$125,000 Total: \$125,000
Prin. Invest.: V CHOPPA
Tech. Officer: MSFC/V CHOPPA
CASE Category: 56 - MEDICL

NCC 9 81 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8726
 UTMB/NASA-JSC GRADUATE MED TRAINING IN AEROSPACE MEDICINE
 12/07/1998 - 09/30/2003 FY99: \$231,999 Total: \$231,999
Prin. Invest.: J R DAVIS
Tech. Officer: JSC/R BILLICA
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 2 52216 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8727
 IPSILATERAL & CONTRALATERAL EFFERENT CONTROL OF VESTIBULAR
 PRIMARY AFFERENT RESPONSE DYNAMICS
 08/05/1996 - 06/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: A A PERACHIO
Tech. Officer: ARC/N G DAUNTON, ARC/M L CORCORAN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 50071 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8728
 EFFECTS OF MICROGRAVITY ON CELL MEDIATED IMMUNITY TENDENT VIRAL
 INFECTIONS
 09/02/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: D BARRETT
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 952 UNIV OF TEXAS-HLTH SCI CTR-SAN ANTONIO 8729
 DEVELOPMENT OF VESTIBULAR ORGANS IN MICROGRAVITY
 12/16/1994 - 11/30/1999 FY99: \$207,953 Total: \$757,735
Prin. Invest.: M L WIEDERHOLD
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG10 180 UNIV OF TEXAS-HLTH SCI CTR-SAN ANTONIO 8730
 FUNCTIONAL DEVELOPMENT IN A MODEL VESTIBULAR SYSTEM
 01/18/1996 - 10/31/1999 FY99: \$170,000 Total: \$585,175
Prin. Invest.: M L WIEDERHOLD
Tech. Officer: KSC/W M KNOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6871 UNIV OF TEXAS-PAN AMERICAN 8731
 CENTER FOR REMOTE SENSING IN THE LOWER RIO GRANDE VALLEY OF TEXAS
 01/12/1998 - 01/14/1999 FY99: -\$2,954 Total: \$66,978
Prin. Invest.: F JUDD
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1634 UNIV OF TEXAS-PAN AMERICAN 8732
 OPTIMAL DESIGN OF HYBRID PASSIVE VISCOELASTIC AND ACTIVE PIEZOELECTRIC DAMPING LAYERS
 09/30/1999 - 08/31/2000 FY99: \$98,213 Total: \$98,213
Prin. Invest.: A LUMSDAINE
Tech. Officer: MSFC/A BEAM, MSFC/W LOVE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 857 UNIV OF TEXAS-PAN AMERICAN 8733
 DEVELOPMENT OF MINORITY INSTITUTION RESEARCH
 12/11/1995 - 12/31/1999 FY99: \$0 Total: \$497,640
Prin. Invest.: E LEMASTER, R H FOWLER
Tech. Officer: JSC/L M ARMEDARIZ
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 9 1169 UNIV OF TEXAS-PAN AMERICAN 8734
 PAARTNERSHIP FOR SCIENCE AND ENGR STUDENT SUCCESS
 09/27/1999 - 09/29/2000 FY99: \$97,464 Total: \$97,464
Prin. Invest.: R FOWLER, J LANAGABEER
Tech. Officer: JSC/S GONZALEZ, JSC/L ARMENDARIZ
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NGT 5 90032 UNIV OF TEXAS-PAN AMERICAN 8735
 USAR
 02/14/1997 - 05/31/1999 FY99: -\$9,498 Total: \$152,222
Prin. Invest.: W C SHOCKLEY
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 962 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8736
 SPACE FLIGHT, STRESS & PLASTICITY
 02/07/1995 - 11/30/1999 FY99: \$106,952 Total: \$438,376
Prin. Invest.: S T BRADY
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4846 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8737
 THE ROLE OF CARDIAC MECHANICS IN BLOOD PRESSURE RE TATIC STRESS
 06/27/1997 - 09/30/1999 FY99: \$0 Total: \$324,000
Prin. Invest.: B LEVINE, NONE
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6317 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8738
 MECHANISM OF PHYSIOLOGICAL ADAPTATION TO MICROGRAVITY
 10/23/1997 - 09/30/1999 FY99: \$0 Total: \$1,130,000
Prin. Invest.: G BLOMQVIST
Tech. Officer: GSFC/L P CHAMBERS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1033 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8739
 MICROCIRCULATORY ADJUSTMENT TO SIMULATED MICROGRAVITY EXPOSURE IN HUMANS
 07/16/1998 - 07/15/2000 FY99: \$155,978 Total: \$209,978
Prin. Invest.: C G CRANDALL
Tech. Officer: JSC/C W LLOYD
CASE Category: 56 - MEDICL

NAGW 3582 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8740
 MECHANISMS OF PHYSIOLOGICAL ADAPTATION TO MICROGRAVITY
 07/19/1993 - 05/31/1998 FY99: \$0 Total: \$4,304,000
Prin. Invest.: C G BLOMQVIST
Tech. Officer: HQ/R J WHITE
CASE Category: 56 - MEDICL

NAS 9 19429 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8741
 INTEGRATION OF NEURAL CARDIOVASCULAR CONTROL IN SPACE
 10/31/1995 - 07/31/2000 FY99: \$126,999 Total: \$766,999
Prin. Invest.: C G BLOMQVIST
Tech. Officer: JSC/A M LEE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAS 9 19540 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8742
 ADAPTIVE CHANGES IN CARDIOVASCULAR CONTROL AT MICROGRAVITY
 02/13/1996 - 07/31/2000 FY99: \$130,190 Total: \$965,190
Prin. Invest.: C G BLOMQVIST
Tech. Officer: JSC/C M SMITH
CASE Category: 56 - MEDICL

NAG 8 1347 UNIV. OF TEXAS MD ANDERSON CANCER CENTER 8743
 USE OF NASA BIOREACTORS IN A NOVEL SCHEME FOR IMMUNIZATION AGAINST CANCER
 06/18/1997 - 12/31/2000 FY99: \$131,319 Total: \$320,232
Prin. Invest.: C A SAVARY
Tech. Officer: MSFC/B R GUYNES, MSFC/J MAYO
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1348 UNIV. OF TEXAS MD ANDERSON CANCER CENTER 8744
 APPLICATION OF BIOREACTOR TECHNOLOGY ANALYSIS AND COUNTER MEASURE DEVELOPMENT OF MICROGRAVITY
 06/18/1997 - 11/30/2000 FY99: \$110,816 Total: \$253,197
Prin. Invest.: E A GRIMM
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1570 UNIV. OF TEXAS MD ANDERSON CANCER CENTER 8745
 APPLICATION OF BIOREACTOR TECHNOLOGY FOR A PRECLINICAL HUMAN MODEL OF MELANOMA
 03/19/1999 - 11/30/2002 FY99: \$106,000 Total: \$106,000
Prin. Invest.: E A GRIMM
Tech. Officer: MSFC/B V GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1261 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8746
 RELATIONSHIP OF MORPHOGENESIS & MINERALIZATION TO GRAVITY IN SPACEFLOWN ALGAE
 09/01/1998 - 05/31/2000 FY99: \$100,029 Total: \$120,029
Prin. Invest.: P J DUKE
Tech. Officer: ARC/C M WINGET, ARC/P D SAVAGE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4710 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8747
 GRAVITY AND THE REGULATION OF A CENTRAL GROWTH FAC
 06/11/1997 - 01/31/2000 FY99: \$137,367 Total: \$269,007
Prin. Invest.: E DURBAN
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6176 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8748
 3RD YEAR RENEWAL OF GRANT # NAGW 4479 FOR PHYSIOLO DECOM-
 PRESSION-INDUCED VENOUS BUBBLES
 07/28/1997 - 03/31/1999 FY99: \$0 Total: \$100,859
Prin. Invest.: B BUTLER
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1585 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8749
 IMPACT/MICROGRAVITY ON IMMUNOGENICITY ASSOCIATED WITH BIS-
 TRUCTURAL CHANGES/PANCRATIC ISLETS
 03/19/1999 - 12/31/2002 FY99: \$91,000 Total: \$91,000
Prin. Invest.: L P RUTZKY
Tech. Officer: MSFC/B V GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 813 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8750
 EFFECT OF MICROGRAVITY ON HUMAN SKIN EQUIVALENT
 08/11/1995 - 10/08/1999 FY99: \$0 Total: \$239,000
Prin. Invest.: D DIMITRIJEVICH
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 834 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8751
 USE OF ROTATING WALL VESSEL TO FACILITATE CULTURE OF NORWALK
 VIRUS
 08/22/1995 - 08/31/2000 FY99: \$0 Total: \$700,000
Prin. Invest.: P JOHNSON
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 865 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8752
 IN VIO GAS PHASE FORMATION/GROWTH
 04/11/1996 - 11/30/1999 FY99: \$0 Total: \$60,000
Prin. Invest.: B BUTLER
Tech. Officer: JSC/D POWELL
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 866 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8753
 TISSUE GAS MICRONUCLEI FUNCTION & THIER LIFETIMES
 05/01/1996 - 10/19/1999 FY99: \$0 Total: \$49,288
Prin. Invest.: D FIFE
Tech. Officer: JSC/D POWELL
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 903 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8754
 EPIDEMIOLOGY OF MICROORGANISMS IN SPACE FLIGHT ENVIRONMENT
 08/29/1996 - 12/29/1998 FY99: \$0 Total: \$58,792
Prin. Invest.: G M WEINSTOCK
Tech. Officer: JSC/D L PIERSON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 940 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8755
 LIFETIMES OF VIVO GAS BUBBLE MICRONUCLEI
 04/15/1997 - 04/15/1999 FY99: -\$975 Total: \$129,025
Prin. Invest.: B BUTLER
Tech. Officer: JSC/M POWELL
CASE Category: 56 - MEDICL

NAG 9 952 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8756
 EXERCISE DURING PREBREATHE: REDUCTION OF THE H-2-O PRE-
 BREATHE TIME
 08/14/1997 - 02/14/2000 FY99: \$0 Total: \$54,000
Prin. Invest.: C FIFE
Tech. Officer: JSC/M R POWELL
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 1040 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8757
 EFFECTS OF CIRCADIAN RHYTHMS ON DEPRESSION OUTCOME
 06/22/1998 - 06/30/2001 FY99: \$97,000 Total: \$129,000
Prin. Invest.: B BUTLER
Tech. Officer: JSC/C SAWIN
CASE Category: 56 - MEDICL

NAG 9 1142 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8758
 AN IN VITRO OSTEOSPEROID MODEL TO STUDY MICROGRAVITY EFFECTS
 ON BONE FUNCTION
 08/27/1999 - 10/14/1999 FY99: \$5,000 Total: \$5,000
Prin. Invest.: T DEIS
Tech. Officer: JSC/C W LLOYD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 1144 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8759
 DUST STIMULANTS ON LUNG INFLAMMATION AND ALVEOLAR MACRO-
 PHAGE FUNCTION
 09/20/1999 - 09/19/2002 FY99: \$10,000 Total: \$10,000
Prin. Invest.: A HOLIAN
Tech. Officer: JSC/J T JAMES
CASE Category: 56 - MEDICL

NAGW 3908 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8760
 NAGW-3908/B UNIV. TX HEALTH SCI CTR HOUSTON "BIOCHEM. ADAPT. OF
 ANTI-GRAVITY MUSCLE ATROPHY" 12 MO
 03/31/1994 - 02/28/1998 FY99: -\$51 Total: \$260,742
Prin. Invest.: F W BOOTH
Tech. Officer: HQ/F M SULZMAN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 4990 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8761
 HOX GENES AND PATTERN FORMATION IN SPACE FLOWN MOUSE LIMB-
 BUDS
 03/07/1996 - 09/30/1997 FY99: -\$98 Total: \$69,901
Prin. Invest.: D J DUKE
Tech. Officer: HQ/F SULZMAN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 19439 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8762
 MICROBIAL INTERACTION IN THE MIR SPACE STATION ENVIRONMENT
 12/19/1995 - 03/15/1999 FY99: \$55,093 Total: \$504,567
Prin. Invest.: G WEINSTOCK
Tech. Officer: JSC/A PLAZA
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 8 168 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8763
 NUTRITION IMMUNOMODULATION IN MICROGRAVITY
 03/05/1999 - 09/30/2002 FY99: \$134,000 Total: \$134,000
 Prin. Invest.: A D KULKARNI
 Tech. Officer: MSFC/B GUYNES
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 9 82 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8764
 EVA PREBREATHE REDUCTION PROTOCOL
 03/11/1999 - 03/10/2003 FY99: \$150,000 Total: \$150,000
 Prin. Invest.: B BUTLER
 Tech. Officer: JSC/M GERNHARDT
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50084 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8765
 IMMUNOTOXICITY OF HYDRAZINE/GRADUATE STUDENT RESEA _JUDITH A. LATCH
 09/17/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
 Prin. Invest.: A HOLIAN
 Tech. Officer: GSFC/L P CHAMBERS
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 25 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8766
 ANTIGEN SPECIFIC IMMUNE DISFUNCTION ASSOCIATED W/ CHRONIC STRESS
 06/25/1997 - 08/31/2000 FY99: \$19,333 Total: \$63,333
 Prin. Invest.: G MARSHALL, JR., S K AGARWAL
 Tech. Officer: JSC/C F SAMS
 CASE Category: 56 - MEDICL

NAG 9 1083 UNIVERSITY OF HOUSTON - CLEAR LAKE 8767
 COX REGRESSION MODELING AND ANALYSIS OF NASA/JSC EXPERIMENTAL DATA ON DECOMPRESSION SICKNESS
 02/20/1999 - 04/30/2000 FY99: \$30,000 Total: \$30,000
 Prin. Invest.: R S CHHIKARA
 Tech. Officer: JSC/M POWELL
 CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 9 30 UNIVERSITY OF HOUSTON - CLEAR LAKE 8768
 RESEARCH FOR COMPUTING & INFORMATION SYSTEMS
 08/08/1994 - 12/31/2000 FY99: \$5,755,759 Total: \$15,596,530
 Prin. Invest.: E T DICKERSON
 Tech. Officer: JSC/R T SAVELY
 CASE Category: 22 - COMPUTER SCIENCE

NCC 9 72 UNIVERSITY OF HOUSTON - CLEAR LAKE 8769
 TEACHING GEOGRAPHY WITH SPACE AGE TECHNOLOGY
 07/01/1998 - 08/14/1998 FY99: -\$440 Total: \$14,560
 Prin. Invest.: J MAIER
 Tech. Officer: JSC/L LENOX
 CASE Category: 32 - GEOLOGICAL SCIENCE

NCC 9 76 UNIVERSITY OF HOUSTON - CLEAR LAKE 8770
 STATISTICAL PROCESS CONTROL OF SHUTTLE MAINT OPS
 09/24/1998 - 09/23/2000 FY99: \$0 Total: \$32,685
 Prin. Invest.: R S CHHIKARA
 Tech. Officer: JSC/JARRELL
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 9 38 UNIVERSITY OF HOUSTON - CLEAR LAKE 8771
 GEOGRAPHY INST FOR TEACHERS
 03/24/1999 - 10/01/1999 FY99: \$21,978 Total: \$21,978
 Prin. Invest.: J N MAIER
 Tech. Officer: JSC/B A DEASON, JSC/N G ROBERTSON
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 980 UNIVERSITY OF HOUSTON - DOWNTOWN 8772
 EARLY LIFE FORMS
 11/25/1997 - 05/31/1998 FY99: \$0 Total: \$15,500
 Prin. Invest.: P A SMITH
 Tech. Officer: JSC/D G SICKOREZ
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1018 UNIVERSITY OF HOUSTON - DOWNTOWN 8773
 PRECOLLEGE AWARD FOR EXCELLENCE PACE/MSET
 05/01/1998 - 04/30/2000 FY99: \$99,953 Total: \$199,447
 Prin. Invest.: R ALO
 Tech. Officer: JSC/L ARMENDARIZ
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1113 UNIVERSITY OF HOUSTON - DOWNTOWN 8774
 ACIENT LIFE IN ROCKS ON EARTH
 05/14/1999 - 05/13/2000 FY99: \$10,000 Total: \$10,000
 Prin. Invest.: P A MORRIS-SMITH
 Tech. Officer: JSC/E K GIBSON
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 9 1114 UNIVERSITY OF HOUSTON - DOWNTOWN 8775
 ACIENT LIFE IN ROCKS ON EARTH
 05/14/1999 - 05/13/2000 FY99: \$10,000 Total: \$10,000
 Prin. Invest.: P A MORRIS-SMITH
 Tech. Officer: JSC/E K GIBSON
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4891 UNIVERSITY OF NORTH TEXAS 8776
 THE PRODUCTION, CONCENTRATION, AND ARRANGEMENT OF INORGANIC HOSTS
 06/19/1997 - 08/31/1999 FY99: \$70,000 Total: \$140,000
 Prin. Invest.: D S BRATERMAN
 Tech. Officer: GSFC/M MEYER
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 70409 UNIVERSITY OF NORTH TEXAS 8777
 GRADUATE STUDENT RESEARCHERS (UMDF) PROGRAM
 07/18/1995 - 12/31/1997 FY99: -\$1 Total: \$43,999
 Prin. Invest.: P B RAVEN
 Tech. Officer: HQ/D K RUSSELL
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3744 UNIV OF NORTH TEXAS HLTH SCI.CTR AT FT.WORTH 8778
 MICROGRAVITY: SLEEP DEPRIVATION AND AUTONOMIC CONT
 03/11/1997 - 03/14/2000 FY99: \$0 Total: \$263,844
 Prin. Invest.: M SMITH, NONE
 Tech. Officer: GSFC/V SCHNEIDER
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4668 UNIV OF NORTH TEXAS HLTH SCI.CTR AT FT.WORTH 8779
 CARTOID BAROREFLEX FUNCTION DURING PROLONGED EXERC
 06/17/1997 - 05/31/2000 FY99: \$99,991 Total: \$301,896
 Prin. Invest.: P B RAVEN
 Tech. Officer: GSFC/V SCHNEIDER
 CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 50179 UNIV OF NORTH TEXAS HLTH SCI.CTR AT FT.WORTH **8780**
 SLEEP RESTRICTION AND MECHANISMS OF ORTHOSTATIC TO LERANCE
 10/31/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
 Prin. Invest.: M SMITH
 Tech. Officer: HQ/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1121 UNIVERSITY OF TEXAS - AUSTIN **8781**
 MODELING THE GROWTH AND INTERACTION OF FRACTURES
 FDP
 03/26/1990 - 11/30/1998 FY99: -\$5,832 Total: \$495,689
 Prin. Invest.: M E MEAR
 Tech. Officer: LARC/J C NEWMAN, JR., LARC/C E HARRIS
 CASE Category: 46 - MECHANICAL ENGR

NAG 1 2197 UNIVERSITY OF TEXAS - AUSTIN **8782**
 A COMPUTATIONAL PROCEDURE FOR THREE DIMENSIONAL STRESS
 ANALYSIS FRACTURES
 05/19/1999 - 05/31/2000 FY99: \$64,193 Total: \$64,193
 Prin. Invest.: M E MEAR
 Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU
 CASE Category: 46 - MECHANICAL ENGR

NAG 2 1051 UNIVERSITY OF TEXAS - AUSTIN **8783**
 A VERY HIGH RESOLUTION MID-INFRARED SPECTROGRAPH FOR SOFIA
 06/05/1996 - 02/28/1998 FY99: -\$421 Total: \$81,024
 Prin. Invest.: J H LACY
 Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
 CASE Category: 11 - ASTRONOMY

NAG 2 1053 UNIVERSITY OF TEXAS - AUSTIN **8784**
 FAR-INFRARED EMISSION-LINE OBSERVATIONS FROM THE KAO
 06/17/1996 - 02/29/2000 FY99: \$0 Total: \$10,760
 Prin. Invest.: H L DINERSTEIN
 Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
 CASE Category: 11 - ASTRONOMY

NAG 2 1083 UNIVERSITY OF TEXAS - AUSTIN **8785**
 A DIFFRACTION-LIMITED, MULTICOLOR
 08/23/1996 - 05/31/1999 FY99: \$0 Total: \$112,290
 Prin. Invest.: P M HARVEY
 Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
 CASE Category: 11 - ASTRONOMY

NAG 2 1347 UNIVERSITY OF TEXAS - AUSTIN **8786**
 CELLULAR BASES OF LIGHT REGULATED GRAVITY RESPONSE S
 07/23/1999 - 12/31/1999 FY99: \$64,218 Total: \$64,218
 Prin. Invest.: S J ROUX
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1349 UNIVERSITY OF TEXAS - AUSTIN **8787**
 EVOLUTIONARY ORIGIN OF BODY AXIS SEGMENTATION IN A NEMELIDS &
 ARTHROPODS
 07/20/1999 - 01/14/2000 FY99: \$63,313 Total: \$63,313
 Prin. Invest.: S M SHANKLAND
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1839 UNIVERSITY OF TEXAS - AUSTIN **8788**
 INSTABILITIES IN SURFACE-TENSION DRIVEN CONVECTION
 05/06/1996 - 05/05/2000 FY99: \$125,000 Total: \$380,000
 Prin. Invest.: H L SWINNEY
 Tech. Officer: GRC/A T CHAI
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1876 UNIVERSITY OF TEXAS - AUSTIN **8789**
 DIFFUSION FLAME STRUCTURE, SHAPE, EXTINCTION: GEOMETRICAL
 CONSIDERATIONS
 06/16/1996 - 06/16/1998 FY99: -\$2,349 Total: \$99,317
 Prin. Invest.: O A EZEKEYE
 Tech. Officer: GRC/D P STOCKER, GRC/H D ROSS
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 1901 UNIVERSITY OF TEXAS - AUSTIN **8790**
 PRECISION MEASUREMENTS WITH TRAPPED LASER-COOLED ATOMS IN A
 MICROGRAVITY ENVIRONMENT
 06/14/1996 - 06/13/2000 FY99: \$100,000 Total: \$315,000
 Prin. Invest.: D J HEINZEN
 Tech. Officer: GRC/B S SINGH
 CASE Category: 13 - PHYSICS

NAG 3 2240 UNIVERSITY OF TEXAS - AUSTIN **8791**
 LASER VELOCIMETER FOR STUDIES OF MICROGRAVITY COMBUSTION
 FLOWFIELDS
 02/26/1999 - 01/13/2002 FY99: \$67,500 Total: \$67,500
 Prin. Invest.: P L VARGHESE
 Tech. Officer: GRC/P S GREENBERG
 CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2265 UNIVERSITY OF TEXAS - AUSTIN **8792**
 COMPOSITE FLYWHEEL PRELOAD MONITOR COMPOSITE FLYWHEEL PRE-
 LOAD MONITOR
 05/12/1999 - 10/05/1999 FY99: \$50,153 Total: \$50,153
 Prin. Invest.: J L BENO
 Tech. Officer: GRC/D CHRISTOPHER
 CASE Category: 45 - ELECTRICAL ENGR

NAG 5 1603 UNIVERSITY OF TEXAS - AUSTIN **8793**
 HST - GTO
 05/20/1991 - 10/31/1999 FY99: \$157,000 Total: \$8,633,785
 Prin. Invest.: W H JEFFERYS
 Tech. Officer: GSFC/J JELETIC
 CASE Category: 11 - ASTRONOMY

NAG 5 1616 UNIVERSITY OF TEXAS - AUSTIN **8794**
 STELLAR SPECTROSCOPY AND THE HUBBLE SPACE TELESCOPE
 05/24/1991 - 10/31/1999 FY99: \$0 Total: \$484,054
 Prin. Invest.: D L LAMBERT
 Tech. Officer: GSFC/E RUITBERG
 CASE Category: 11 - ASTRONOMY

NAG 5 1855 UNIVERSITY OF TEXAS - AUSTIN **8795**
 HUBBLE SPACE TELESCOPE (HST) GUARANTEED TIME OBSERVATION
 01/02/1992 - 11/14/1999 FY99: \$0 Total: \$522,000
 Prin. Invest.: L M TRAFTON
 Tech. Officer: GSFC/A SMITH
 CASE Category: 11 - ASTRONOMY

NAG 5 1929 UNIVERSITY OF TEXAS - AUSTIN 8796
 ESTABLISHMENT OF A FLINN SITE IN WEST TEXAS
 03/04/1992 - 10/31/1997 FY99: \$0 Total: \$143,498
Prin. Invest.: C R WILSON
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 1939 UNIVERSITY OF TEXAS - AUSTIN 8797
 STUDY OF CRUSTAL DEFORMATION IN THE INDIAN-EURASIA N COLLISION ZONE
 03/12/1992 - 04/14/1999 FY99: \$0 Total: \$368,000
Prin. Invest.: B TAPLEY
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 2146 UNIVERSITY OF TEXAS - AUSTIN 8798
 LAGEOS SATELLITE LASER RANGING DATA ANALYSIS
 12/14/1992 - 09/30/1998 FY99: -\$31,924 Total: \$519,595
Prin. Invest.: R J EANES, M M WATKINS
Tech. Officer: GSFC/J J DEGNAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 2497 UNIVERSITY OF TEXAS - AUSTIN 8799
 DENSE LINEAR ALGEBRA ALGORITHMS BASED ON PARALLEL BLAS
 02/02/1994 - 11/30/1998 FY99: -\$444 Total: \$89,556
Prin. Invest.: R A VAN DE GEI JN
Tech. Officer: GSFC/J R FISHER
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2773 UNIVERSITY OF TEXAS - AUSTIN 8800
 SELECTED DYNAMO PROBLEMS IN ASTROPHYSICS
 10/26/1994 - 02/28/1999 FY99: -\$7,202 Total: \$225,798
Prin. Invest.: E T VISHNIAC
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2785 UNIVERSITY OF TEXAS - AUSTIN 8801
 THE EVOLUTION OF THE INTERGALACTIC MEDIUM AND THE FORMATION OF GALAXIES AND LARGE-SCALE STRUCTURE...
 11/14/1994 - 12/31/1998 FY99: \$0 Total: \$255,500
Prin. Invest.: P R SHAPIRO
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2818 UNIVERSITY OF TEXAS - AUSTIN 8802
 ASTEROSEISMOLOGY OF WHITE DWARF STARS.
 12/08/1994 - 11/30/1998 FY99: -\$874 Total: \$238,640
Prin. Invest.: D E WINGET
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2954 UNIVERSITY OF TEXAS - AUSTIN 8803
 DETECTING SMALL-SCALE TOPOGRAPHIC CHANGES AND RELICIT GEOMORPHIC FEATURES ON BARRIER ISLANDS ETC
 06/01/1995 - 08/31/1999 FY99: \$0 Total: \$297,759
Prin. Invest.: J C GIBEAUT
Tech. Officer: GSFC/H V FREY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3107 UNIVERSITY OF TEXAS - AUSTIN 8804
 THEORETICAL MODELS FOR THE STELLAR MASS FUNCTION
 10/19/1995 - 10/31/1999 FY99: \$0 Total: \$117,000
Prin. Invest.: J M SCALO
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3127 UNIVERSITY OF TEXAS - AUSTIN 8805
 GEOPOTENTIAL DETERMINATION USING SATELLITE-TO- SATELLITE TRACKING
 10/19/1995 - 10/31/1998 FY99: \$0 Total: \$300,000
Prin. Invest.: B TAPLEY
Tech. Officer: GSFC/P TAYLOR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3129 UNIVERSITY OF TEXAS - AUSTIN 8806
 HIGH FREQUENCY VARIATIONS IN EARTH ORIENTATION
 10/26/1995 - 10/31/1999 FY99: \$0 Total: \$152,800
Prin. Invest.: C R WILSON
Tech. Officer: GSFC/P TAYLOR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3325 UNIVERSITY OF TEXAS - AUSTIN 8807
 ECHO TOMOGRAPHY OF REPROCESSING SITES IN X-RAY BINARIES
 08/07/1996 - 02/14/1998 FY99: -\$340 Total: \$4,708
Prin. Invest.: E ROBINSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3348 UNIVERSITY OF TEXAS - AUSTIN 8808
 ANALYSIS OF ISO DATA
 08/12/1996 - 08/14/2000 FY99: \$0 Total: \$264,800
Prin. Invest.: D L LAMBERT
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3431 UNIVERSITY OF TEXAS - AUSTIN 8809
 PARASEC-SCALE ENVIRONMENT OF LIMINOUS AGN: SPECTROSCOPIC CLUES TO WINDS, JETS, AND ACCRETION
 10/01/1996 - 09/30/2000 FY99: \$145,000 Total: \$559,606
Prin. Invest.: B J WILLS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3649 UNIVERSITY OF TEXAS - AUSTIN 8810
 OBTAINING RELATIVITY AND OTHER RELEVANT PARAMETERS RANGING DATA
 03/06/1997 - 02/28/2000 FY99: \$36,800 Total: \$118,376
Prin. Invest.: D J SHELLUS, NONE
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 3773 UNIVERSITY OF TEXAS - AUSTIN 8811
 REMOTELY SENSED SOIL MOISTURE USING FOUR DIMENSIONAL
 02/12/1997 - 09/30/1998 FY99: -\$3,477 Total: \$52,566
Prin. Invest.: J S FAMIGHETTI
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3786 UNIVERSITY OF TEXAS - AUSTIN 8812
 McDONALD OBSERVATORY SUPPORT: HARLAN SMITH POST-DO PLAN-
 ETARY SCIENCE
 03/19/1997 - 12/31/2000 FY99: \$56,492 Total: \$157,929
 Prin. Invest.: D N BASH
 Tech. Officer: GSFC/J BERGSTRALH
 CASE Category: 11 - ASTRONOMY

NAG 5 3887 UNIVERSITY OF TEXAS - AUSTIN 8813
 CELLULAR BASES OF LIGHT-REGULATED GRAVITY RESPONSE
 03/12/1997 - 08/31/1999 FY99: \$30,267 Total: \$177,654
 Prin. Invest.: S J ROUX
 Tech. Officer: GSFC/T SCOTT
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3930 UNIVERSITY OF TEXAS - AUSTIN 8814
 COMBUSTION IN ASTROPHYSICS
 03/12/1997 - 03/14/2000 FY99: \$15,860 Total: \$47,580
 Prin. Invest.: C J WHEELER
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 4008 UNIVERSITY OF TEXAS - AUSTIN 8815
 INVESTIGATING RELATIVITY PARAMETERS WITH LUNAR LAS
 03/12/1997 - 12/31/1997 FY99: -\$1,228 Total: \$37,772
 Prin. Invest.: D J SHELUS
 Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 4059 UNIVERSITY OF TEXAS - AUSTIN 8816
 BLACK HOLE X-RAY NOVA OUTBURST WITH XTE AND HST
 03/24/1997 - 03/14/1998 FY99: -\$2,244 Total: \$2,804
 Prin. Invest.: E ROBINSON
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 4125 UNIVERSITY OF TEXAS - AUSTIN 8817
 INVESTIGATING RELATIVITY PARAMETERS WITH LUNAR LAS OBSERVA-
 TIONS
 03/13/1997 - 12/31/1999 FY99: \$0 Total: \$76,700
 Prin. Invest.: D J SHELUS
 Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 4208 UNIVERSITY OF TEXAS - AUSTIN 8818
 INVESTIGATIONS OF COMETS: HALE-BOPP, THE KUIPER BEL OF OPPORTU-
 NITY
 03/14/1997 - 03/14/2000 FY99: \$89,798 Total: \$261,131
 Prin. Invest.: D L COCHRAN
 Tech. Officer: GSFC/J BERGSTRALH
 CASE Category: 11 - ASTRONOMY

NAG 5 4209 UNIVERSITY OF TEXAS - AUSTIN 8819
 MICROMACHINED DIFFRACTION GRATINGS FOR COMPACT IR
 03/14/1997 - 03/14/2000 FY99: \$42,204 Total: \$197,746
 Prin. Invest.: D JAFFE
 Tech. Officer: GSFC/G STRINGFELLOW
 CASE Category: 11 - ASTRONOMY

NAG 5 4384 UNIVERSITY OF TEXAS - AUSTIN 8820
 RADIAL VELOCITY DETECTION OF EXTRA-SOLAR PLANETARY
 04/24/1997 - 02/29/2000 FY99: \$226,668 Total: \$510,003
 Prin. Invest.: D D COCHRAN
 Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 4511 UNIVERSITY OF TEXAS - AUSTIN 8821
 IMPROVED OCEAN TIDE MODELS FROM SATELLITE ALTIMETRY TO GEO-
 DYNAMICS RESEARCH (NRA-96-MTPE-01)
 06/02/1997 - 05/31/1998 FY99: -\$12 Total: \$44,988
 Prin. Invest.: R J EANES
 Tech. Officer: GSFC/C KOBLINSKY
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 4513 UNIVERSITY OF TEXAS - AUSTIN 8822
 AN INVESTIGATION OF VERY LOW FREQUENCY SEA LEVEL C POSEIDON
 ALTIMETER DATA (NRA-96-MTPE-01)
 06/02/1997 - 08/31/1998 FY99: \$0 Total: \$139,000
 Prin. Invest.: R S NEREM
 Tech. Officer: GSFC/C KOBLINSKY
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 4514 UNIVERSITY OF TEXAS - AUSTIN 8823
 DÉTERMINATION AND INTERPRETATION OF DYNAMIC TOPOGR POSEIDON
 (NRA-96-MTPE-01)
 06/02/1997 - 07/31/1998 FY99: \$0 Total: \$75,000
 Prin. Invest.: B D TAPLEY
 Tech. Officer: GSFC/C KOBLINSKY
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 4566 UNIVERSITY OF TEXAS - AUSTIN 8824
 UNIVERSO & HISPANIC HERITAGE MONTH RADIO PROGRAMS CLASSROOM
 06/23/1997 - 08/31/1998 FY99: \$0 Total: \$65,000
 Prin. Invest.: S BARNES
 Tech. Officer: GSFC/J D ROSEDHAL
 CASE Category: 11 - ASTRONOMY

NAG 5 4887 UNIVERSITY OF TEXAS - AUSTIN 8825
 DIRECT SIMULATION OF LOW DENSITY ATMOSPHERE FLOW
 06/20/1997 - 12/31/1998 FY99: \$0 Total: \$54,627
 Prin. Invest.: D GOLDSTEIN
 Tech. Officer: GSFC/S HOWARD
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4934 UNIVERSITY OF TEXAS - AUSTIN 8826
 GROUND BASED STUDIES OF THE OUTER PLANETS
 06/23/1997 - 07/31/1999 FY99: \$0 Total: \$45,000
 Prin. Invest.: D TRAFTON
 Tech. Officer: GSFC/J BERGSTRALH
 CASE Category: 11 - ASTRONOMY

NAG 5 5170 UNIVERSITY OF TEXAS - AUSTIN 8827
 DETERMINATION OF TIME-VARYING EARTH GRAVITY FIELD F Y
 07/17/1997 - 07/14/2000 FY99: \$23,000 Total: \$133,000
 Prin. Invest.: M CHENG
 Tech. Officer: GSFC/H FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 5171 UNIVERSITY OF TEXAS - AUSTIN 8828
 MEASUREMENT AND INTERPRETATION OF TEMPORAL VARIATION FIELD
 USING GPS AND SLR
 07/17/1997 - 07/14/2000 FY99: \$31,000 Total: \$131,000
Prin. Invest.: R R E M
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6140 UNIVERSITY OF TEXAS - AUSTIN 8829
 HIGH DISPERSION SPECTROSCOPY OF MARS, PLUTO AND CO
 09/08/1997 - 08/31/1999 FY99: \$108,333 Total: \$260,000
Prin. Invest.: D S BARKER
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 6300 UNIVERSITY OF TEXAS - AUSTIN 8830
 UNIVERSITY OF TEXAS, ENHANCEMENT USING A SPECIAL C
 09/17/1997 - 06/14/1999 FY99: \$0 Total: \$19,911
Prin. Invest.: W T FOWLER
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6309 UNIVERSITY OF TEXAS - AUSTIN 8831
 EARTH SYSTEM DYNAMICS: THE DETERMINATION & INTERPRETATION OF
 THE GLOBAL ANGULAR MOMENTUM BUDGET USING
 10/10/1997 - 06/30/2000 FY99: \$1,087,000 Total: \$3,094,000
Prin. Invest.: B TAPLEY
Tech. Officer: GSFC/E PAYLOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6346 UNIVERSITY OF TEXAS - AUSTIN 8832
 PRECISION ORBIT DETERMINATION AND CALIBRATION SUPPORT FOR U.S.
 WORLD OCEAN CIRCULATION EXPERIMENT
 10/17/1997 - 12/31/1999 FY99: \$0 Total: \$234,472
Prin. Invest.: B TAPLEY
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6368 UNIVERSITY OF TEXAS - AUSTIN 8833
 ASTROMETRY AND DYNAMICS OF NEAR-EARTH OBJECTS AND KIRKWOOD
 GAPS
 09/25/1997 - 09/30/1999 FY99: \$77,149 Total: \$143,724
Prin. Invest.: D S BARKER
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 6393 UNIVERSITY OF TEXAS - AUSTIN 8834
 REMOTE SENSING SOIL MOISTURE USING FOUR DIMENSIONAL DATA
 ASSIMILATION
 10/21/1997 - 09/30/1998 FY99: -\$1,711 Total: \$54,333
Prin. Invest.: J FAMIGLIETTI
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6395 UNIVERSITY OF TEXAS - AUSTIN 8835
 MULTISCALE SOIL MOISTURE VARIABILITY FROM COMBINED REMOTE
 SENSING, MODELING, AND OBSERVATIONS
 10/21/1997 - 06/30/2000 FY99: \$0 Total: \$174,070
Prin. Invest.: J FAMIGLIETTI
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6596 UNIVERSITY OF TEXAS - AUSTIN 8836
 MULTIREOLUTION INFORMATION ARCHIVAL AND ANALYSIS SYSTEM
 11/24/1997 - 06/30/1998 FY99: -\$14 Total: \$199,986
Prin. Invest.: D FUSSELL
Tech. Officer: GSFC/R KREIDER
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 6728 UNIVERSITY OF TEXAS - AUSTIN 8837
 GENERAL RELATIVISTIC AND GRAVITATIONAL PHYSICS PARAMETERS
 FROM LUNAR LASER RANGING DATA
 12/11/1997 - 12/31/1999 FY99: \$67,000 Total: \$102,000
Prin. Invest.: P J SHELUS
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 6754 UNIVERSITY OF TEXAS - AUSTIN 8838
 GROUND BASED STUDIES OF THE OUTER PLANETS
 12/15/1997 - 12/31/1999 FY99: \$82,759 Total: \$165,518
Prin. Invest.: L M TRAFTON
Tech. Officer: GSFC/T MORGAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7002 UNIVERSITY OF TEXAS - AUSTIN 8839
 TIME SERIES ANALYSIS OF THE UV FLICKERING IN AGN
 02/09/1998 - 02/14/2000 FY99: \$50,000 Total: \$100,000
Prin. Invest.: E ROBINSON
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7203 UNIVERSITY OF TEXAS - AUSTIN 8840
 TRACING THE MASS IN AN EVOLUTIONARY SEQUENCE
 04/23/1998 - 04/14/2001 FY99: \$58,000 Total: \$115,643
Prin. Invest.: N J EVANS, 11
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7363 UNIVERSITY OF TEXAS - AUSTIN 8841
 THE EVOLUTION OF THE INTERGALACTIC MEDIUM AND THE FORMATION
 OF GALAXIES AND LARGE-SCALE STRUCTURE IN
 04/30/1998 - 05/31/2000 FY99: \$0 Total: \$50,000
Prin. Invest.: P R SHAPIRO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7582 UNIVERSITY OF TEXAS - AUSTIN 8842
 "MAPPING NEAR-SURFACE SALINIZATION USING LONG-WAVELENGTH AIR-
 SAR" (SENH98-0113)
 08/04/1998 - 01/31/2000 FY99: \$42,000 Total: \$63,000
Prin. Invest.: J G PAINE
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7660 UNIVERSITY OF TEXAS - AUSTIN 8843
 'PATTERNS OF SHORELINE CHANGE AND HURRICANE WASHOVER ON
 BARRIER ISLANDS' (SENH98-0094)
 09/09/1998 - 02/29/2000 FY99: \$200,000 Total: \$300,000
Prin. Invest.: J C GIBEAUT
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7693 UNIVERSITY OF TEXAS - AUSTIN 8844
 FUNDING FOR 'REMOTE SENSING, GIS AND THE ANCIENT TERRITORY: A
 PROJECT FOR THE CHORA OF CHERSONESOS
 09/17/1998 - 03/31/2000 FY99: \$100,000 Total: \$150,023
Prin. Invest.: J C CARTER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7791 UNIVERSITY OF TEXAS - AUSTIN 8845
 SPATIALLY-RESOLVED, GROUND-BASED OBSERVATIONS OF MARTIAN
 ATMOSPHERIC WATER VAPOR: 1999-2002 APP
 12/14/1998 - 08/30/2000 FY99: \$69,700 Total: \$69,700
Prin. Invest.: D S BARKER
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 7821 UNIVERSITY OF TEXAS - AUSTIN 8846
 THE EVOLUTION OF THE INTERGALACTIC MEDIUM AND THE FORMATION
 OF GALAXIES AND LARGE-SCALE STRUCTURE IN
 02/19/1999 - 02/29/2000 FY99: \$78,000 Total: \$78,000
Prin. Invest.: P R SHAPIRO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7910 UNIVERSITY OF TEXAS - AUSTIN 8847
 CHARACTERIZING THE SIPLE COAST ICE STREAM SYSTEM USING SAT-
 ELLITE IMAGES, IMPROVED TOPOGRAPHY, AND IN
 12/07/1998 - 12/31/1999 FY99: \$26,046 Total: \$26,046
Prin. Invest.: D D BLANKENSHIP
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7937 UNIVERSITY OF TEXAS - AUSTIN 8848
 SUPERNOVAE AND COSMOLOGY
 12/21/1998 - 12/31/1999 FY99: \$100,640 Total: \$100,640
Prin. Invest.: P HOEFLICH
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8143 UNIVERSITY OF TEXAS - AUSTIN 8849
 IMPROVED NUMERICAL MODELING OF LOW-DENSITY ATMOSPHERIC
 FLOW ON IO
 02/01/1999 - 12/31/1999 FY99: \$60,638 Total: \$60,638
Prin. Invest.: D GOLDSTEIN
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 8290 UNIVERSITY OF TEXAS - AUSTIN 8850
 OPTIMAL LAND INITIALIZATION FOR SEASONAL CLIMATE PREDICTIONS
 02/24/1999 - 02/29/2000 FY99: \$99,181 Total: \$99,181
Prin. Invest.: J S FAMIGLIETTI
Tech. Officer: GSFC/M RIENECKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8301 UNIVERSITY OF TEXAS - AUSTIN 8851
 PHOTOMETRIC DETECTION OF EXTRA-SOLAR PLANETS
 02/24/1999 - 02/29/2000 FY99: \$97,300 Total: \$97,300
Prin. Invest.: D P HATZES
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8381 UNIVERSITY OF TEXAS - AUSTIN 8852
 PHYSICS OF ULTRA-MAGNETIZED NEUTRON STARS (ATP 98)
 05/13/1999 - 05/15/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: R C DUNCAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8611 UNIVERSITY OF TEXAS - AUSTIN 8853
 SOIL MOISTURE VARIABILITY AND ITS ROLE IN LAND ATMOSPHERE
 INTERACTION DURING SGP97
 06/11/1999 - 06/14/2000 FY99: \$49,171 Total: \$49,171
Prin. Invest.: J S FAMIGLIETTI
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8704 UNIVERSITY OF TEXAS - AUSTIN 8854
 USING THE IMPACT OF THE LUNAR PROSPECTOR ORBITER INTO A POLAR
 COLD TRAP TO DETECT WATER ICE
 07/21/1999 - 07/14/2000 FY99: \$50,000 Total: \$50,000
Prin. Invest.: D B GOLDSTEIN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8858 UNIVERSITY OF TEXAS - AUSTIN 8855
 HIGH INDEX GRISMS FOR MID-INFRARED SPECTROSCOPY.
 09/28/1999 - 09/30/2000 FY99: \$151,196 Total: \$151,196
Prin. Invest.: D T JAFFE
Tech. Officer: GSFC/F HERRERO
CASE Category: 13 - PHYSICS

NAG 9 745 UNIVERSITY OF TEXAS - AUSTIN 8856
 WIDE AREA NETWORK INSTANTIATION DEPLOYMENT & MANAGEMENT OF
 AUTONOMOUS KNOWLEDGE ROBOTS
 06/10/1994 - 04/30/1999 FY99: \$0 Total: \$204,989
Prin. Invest.: C C STOUT, C D STOUT
Tech. Officer: JSC/R SAVELY, JSC/R SHELTON
CASE Category: 22 - COMPUTER SCIENCE

NAG 9 809 UNIVERSITY OF TEXAS - AUSTIN 8857
 ADVANCED DEVELOPMENT ON FAULT TOLERANCE TECH
 08/21/1995 - 08/31/1998 FY99: \$0 Total: \$794,498
Prin. Invest.: D TESAR
Tech. Officer: JSC/J T CHLADEK
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 9 829 UNIVERSITY OF TEXAS - AUSTIN 8858
 SUBSTRUCTURE SYSTEM IDENTIFICATION & MATH UPDATING
 09/22/1995 - 06/30/1999 FY99: \$0 Total: \$60,779
Prin. Invest.: R R CRAIG, JR.
Tech. Officer: JSC/N TENGLER
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 841 UNIVERSITY OF TEXAS - AUSTIN 8859
 DESIGN OF AUTOMATIC CONTROL FOR HUMAN/LOG THERMAL INTERAC-
 TION
 09/25/1995 - 10/25/1999 FY99: \$0 Total: \$133,607
Prin. Invest.: K R DILLER
Tech. Officer: JSC/C LIN
CASE Category: 46 - MECHANICAL ENGR

NAG 9 890 UNIVERSITY OF TEXAS - AUSTIN 8860
 DEV BOUNDARY ELEMENT PROCEDURE 3-DIM STRESS ANALYSIS
 08/20/1996 - 08/31/1998 FY99: \$0 Total: \$101,394
 Prin. Invest.: D E MEAR
 Tech. Officer: JSC/R G FORMAN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 891 UNIVERSITY OF TEXAS - AUSTIN 8861
 ANALYSIS OF PV POWERED REFRIG SYS FOR AEROSPACE TERRESTRIAL
 APPS
 08/19/1996 - 08/18/1998 FY99: -\$4,964 Total: \$42,536
 Prin. Invest.: D C VLIET
 Tech. Officer: JSC/M EWERT
 CASE Category: 49 - ENGINEERING, OTHER

NAG 9 897 UNIVERSITY OF TEXAS - AUSTIN 8862
 CONTINUUM AEROSPACE VEHICLES FLOW STUDY
 08/09/1996 - 08/14/1998 FY99: -\$246 Total: \$76,754
 Prin. Invest.: D B GOLDSTEIN, D L VARGHESE
 Tech. Officer: JSC/F LUMPKIN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 912 UNIVERSITY OF TEXAS - AUSTIN 8863
 TSGC PROTOTYPE/SHUTTLE PHOTO ESSAY PROJECT
 09/24/1996 - 04/24/1999 FY99: \$0 Total: \$20,000
 Prin. Invest.: W T FOWLER
 Tech. Officer: JSC/K D LULLA
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 946 UNIVERSITY OF TEXAS - AUSTIN 8864
 PARTICLE HYDRODYNAMICS W/MATERIAL STRENGTH FOR MULTI LAYER
 ORBITAL DEBRIS
 06/12/1997 - 06/22/1999 FY99: \$0 Total: \$67,026
 Prin. Invest.: E P FAHRENTHOLD
 Tech. Officer: JSC/E L CHRISTIANSEN
 CASE Category: 46 - MECHANICAL ENGR

NAG 9 991 UNIVERSITY OF TEXAS - AUSTIN 8865
 COMPUTATIONAL APPROACH TO MODELING RAREFIED FLOW
 02/20/1998 - 04/30/1999 FY99: \$0 Total: \$32,766
 Prin. Invest.: D B GOLDSTEIN, P L VARGHESE
 Tech. Officer: JSC/F E LUMPKIN, JSC/G J LEBEAU
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 994 UNIVERSITY OF TEXAS - AUSTIN 8866
 1998 NASA REDUCED GRAVITY STUDENT FLIGHT OPS
 02/23/1998 - 01/31/2000 FY99: \$170,404 Total: \$204,293
 Prin. Invest.: B D TAPLEY, B O FORT
 Tech. Officer: JSC/D G SICKOREZ, JSC/N G ROBERTSON
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 996 UNIVERSITY OF TEXAS - AUSTIN 8867
 FLY HIGH-HIGH SCHOOL KC 135 STUDENT FLIGHT PROGRAM
 03/02/1998 - 07/31/1999 FY99: \$0 Total: \$45,438
 Prin. Invest.: W T FOWLER, B E FORT
 Tech. Officer: JSC/D G SICKOREZ
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 1060 UNIVERSITY OF TEXAS - AUSTIN 8868
 NASA STUDENT COMPETITION
 12/14/1998 - 08/31/2000 FY99: \$64,029 Total: \$64,029
 Prin. Invest.: B D TAPLEY
 Tech. Officer: JSC/H C MANDELL
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1075 UNIVERSITY OF TEXAS - AUSTIN 8869
 GPS ON ORBIT RECEIVER FOR RELATIVE NAVIGATION
 01/19/1999 - 12/27/1999 FY99: \$58,283 Total: \$58,283
 Prin. Invest.: R H BISHOP, G LIGHTSEY, J NOREN
 Tech. Officer: JSC/J D WAGENKNECHT, JSC/P LUPO
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 9 1076 UNIVERSITY OF TEXAS - AUSTIN 8870
 NAVIGATION SYSTEM TECHNOLOGY LAB & SUEOLITE STUDY
 01/15/1999 - 12/22/1999 FY99: \$56,773 Total: \$56,773
 Prin. Invest.: R H BISHOP
 Tech. Officer: JSC/J W BELL
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 9 1117 UNIVERSITY OF TEXAS - AUSTIN 8871
 DEVELOP SINGLE COMPUTATIONAL APPROACH TO
 05/24/1999 - 05/26/2000 FY99: \$14,000 Total: \$14,000
 Prin. Invest.: D B GOLDSTEIN, P L VARGHESE
 Tech. Officer: JSC/F E LUMPKIN
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 9 1124 UNIVERSITY OF TEXAS - AUSTIN 8872
 X381CRV GPS RECEIVER SUPPORT
 07/01/1999 - 12/31/1999 FY99: \$46,212 Total: \$46,212
 Prin. Invest.: G E LIGHTSEY
 Tech. Officer: JSC/G C BLACKBURN, JSC/K W DUNN
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAGW 1477 UNIVERSITY OF TEXAS - AUSTIN 8873
 A CONTINUED PROGRAM OF PLANETARY STUDY AT THE UNIV
 12/12/1988 - 06/30/1999 FY99: \$0 Total: \$2,344,737
 Prin. Invest.: H J SMITH
 Tech. Officer: HQ/J H RAHE
 CASE Category: 11 - ASTRONOMY

NAGW 2132 UNIVERSITY OF TEXAS - AUSTIN 8874
 PRECISION ORBIT DETERMINATION AND CALIBRATION SUPPORT FOR U.S.
 WORLD OCEAN CIRCULATION EXPERIMENT
 09/07/1990 - 11/30/1997 FY99: -\$35 Total: \$1,114,715
 Prin. Invest.: B TAPLEY
 Tech. Officer: HQ/B DOUGLAS, HQ/R C HARRISS
 CASE Category: 33 - OCEANOGRAPHY

NAGW 2314 UNIVERSITY OF TEXAS - AUSTIN 8875
 NAGW-2314/UNIV TEXAS @ AUSTIN/GROUND BASED STUDIES OF THE
 OUTER PLANETS
 06/13/1991 - 07/31/1998 FY99: \$0 Total: \$458,400
 Prin. Invest.: L M TRAFTON
 Tech. Officer: HQ/J H RAHE
 CASE Category: 11 - ASTRONOMY

NAGW 3990 UNIVERSITY OF TEXAS - AUSTIN 8876
 RADIAL VELOCITY DETECTION OF EXTRA SOLAR PLANETARY SYSTEMS
 05/13/1994 - 02/28/1998 FY99: \$0 Total: \$417,604
 Prin. Invest.: W COCHRAN
 Tech. Officer: HQ/J H RAHE
 CASE Category: 11 - ASTRONOMY

NAGW 4247 UNIVERSITY OF TEXAS - AUSTIN 8877
 MULTIREOLUTION INFORMATION ARCHIVAL AND ANALYSIS SYSTEM
 02/10/1995 - 08/31/1998 FY99: -\$651 Total: \$520,182
 Prin. Invest.: D FUSSELL
 Tech. Officer: HQ/R S MCGINNIS
 CASE Category: 22 - COMPUTER SCIENCE

NAGW 5187 UNIVERSITY OF TEXAS - AUSTIN 8878
 MONITORING OF COMET HALE-BOPP AND MARTIAN WATER VA POR IN
 1996 1997
 09/04/1996 - 08/31/1998 FY99: -\$1 Total: \$129,999
Prin. Invest.: E BAKER
Tech. Officer: HQ/J BERGSTRALH, HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAGW 5240 UNIVERSITY OF TEXAS - AUSTIN 8879
 MULTISCALE SOIL MOISTURE VARIABILITY FROM COMBINED REMOTE
 SENSING MODELING AND OBSERVATIONS
 04/22/1998 - 12/31/1998 FY99: \$0 Total: \$166,745
Prin. Invest.: J FAMINGLIETTI
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG10 202 UNIVERSITY OF TEXAS - AUSTIN 8880
 EARLY DEVELOPMENT OF FERN GAMETOPHYTES IN MICROSCAVITY
 10/16/1996 - 03/31/2000 FY99: \$123,000 Total: \$308,125
Prin. Invest.: S J POUX
Tech. Officer: KSC/W M KNOTT
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 3 99169 UNIVERSITY OF TEXAS - AUSTIN 8881
 FLYWHEEL ROTOR HUB AND RIM HARDWARE FOR THE ACESE FOR ISS
 07/08/1999 - 08/11/2000 FY99: \$267,100 Total: \$267,100
Prin. Invest.: J H BENO, R C THOMPSON, NONE
Tech. Officer: JSC/K KONNO
CASE Category: 46 - MECHANICAL ENGR

NAS 5 32997 UNIVERSITY OF TEXAS - AUSTIN 8882
 OPERATION, MAINTENANCE AND ENGINEERING DEVELOPMENT OF THE
 UNIV OF TX LASER RANGING STATION
 04/17/1996 - 02/29/2000 FY99: \$445,000 Total: \$1,710,346
Prin. Invest.: P J SHELUS, R RICKLETS, J WIAN
Tech. Officer: GSFC/J MCGARRY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 5 33021 UNIVERSITY OF TEXAS - AUSTIN 8883
 EOS INTERDISCIPLINARY STUDY FOR THE GEODYNAMICS LASER
 12/12/1989 - 10/31/1998 FY99: \$0 Total: \$2,590,200
Prin. Invest.: B SCHUTZ
Tech. Officer: GSFC/G SOFFE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 97213 UNIVERSITY OF TEXAS - AUSTIN 8884
 GRAVITY RECOVERY AND CLIMATE EXPERIMENT (GRACE)
 08/12/1997 - 06/12/2006 FY99: \$1,819,987 Total: \$3,044,000
Prin. Invest.: B TAPLEY
Tech. Officer: GSFC/R FITZGERALD
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 99005 UNIVERSITY OF TEXAS - AUSTIN 8885
 GLAS SCIENCE TEAM LEADER
 11/25/1998 - 11/30/2004 FY99: \$800,000 Total: \$800,000
Prin. Invest.: R SCHUTZ
Tech. Officer: IG SMITH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 9 97045 UNIVERSITY OF TEXAS - AUSTIN 8886
 MARS PRECISION LANDING TASK
 03/03/1997 - 01/11/2000 FY99: \$160,534 Total: \$479,725
Prin. Invest.: B D TAPLEY, R H BISHOP
Tech. Officer: JSC/R CARPENTER
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 303 UNIVERSITY OF TEXAS - AUSTIN 8887
 DURABILITY OF SANDWICH STRUCTURES
 06/04/1998 - 04/30/2000 FY99: \$64,917 Total: \$113,917
Prin. Invest.: K LIECHTI, S KYRIAKIDES
Tech. Officer: LARC/T S GRITES
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5276 UNIVERSITY OF TEXAS - AUSTIN 8888
 DATA INTENSIVE VISUALIZATION
 07/13/1998 - 10/31/1999 FY99: \$14,000 Total: \$70,664
Prin. Invest.: C BAJAJ
Tech. Officer: ARC/M GERALD-YAMASAKI, ARC/A VAZIRI
CASE Category: 22 - COMPUTER SCIENCE

NCC 3 677 UNIVERSITY OF TEXAS - AUSTIN 8889
 INVESTIGATION OF STRAIN/VORTICITY AND LARGE-SCALE FLOW STRUC-
 TURE IN TURBULENT NONPREMIXED JET FLAMES
 02/26/1999 - 01/13/2003 FY99: \$83,668 Total: \$83,668
Prin. Invest.: N T CLEMENS
Tech. Officer: GRC/K SACKSTEDER
CASE Category: 49 - ENGINEERING, OTHER

NCC 5 154 UNIVERSITY OF TEXAS - AUSTIN 8890
 GRAND CHALLENGE RESEARCH
 08/21/1996 - 12/31/1999 FY99: \$50,000 Total: \$900,000
Prin. Invest.: G CAREY
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 9 73 UNIVERSITY OF TEXAS - AUSTIN 8891
 SIMULATION OF HYPERVELOCITY IMPACT ON AL-NEXTEL KEVLOR
 ORBITAL DEBRIS SHIELDS
 08/10/1998 - 03/31/2000 FY99: \$59,916 Total: \$81,752
Prin. Invest.: E P FAHRENTHOLD
Tech. Officer: JSC/E L CHRISTIANSEN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 1 52147 UNIVERSITY OF TEXAS - AUSTIN 8892
 GRADUATE STUDENT RESEARCH PROGRAM (GSRP)
 07/26/1996 - 08/31/2000 FY99: \$10,000 Total: \$76,001
Prin. Invest.: D GARZA
Tech. Officer: LARC/R D BRAUM
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 33 UNIVERSITY OF TEXAS - AUSTIN 8893
 DEVELOPMENT OF A PARALLRL ALGORITHM FOR LAND SURFA CE
 HYDROLOGY AND RIVER TRANSPORT IN COUPLED
 07/29/1996 - 08/31/1999 FY99: \$22,000 Total: \$66,000
Prin. Invest.: J FAMIGLIETTI
Tech. Officer: GSFC/G A SOFFEN, GSFC/M SUAREZ
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 72 UNIVERSITY OF TEXAS - AUSTIN 8894
 GSRP TRAINING GRANT - PAUL THOMPSON - MASS DISTRIBUTION IN THE
 EARTH'S SYSTEMS: SPACE GEODETIC MEASUREMENTS
 06/04/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: R NEREM
Tech. Officer: GSFC/M S BURRELL
CASE Category: 41 - AERONAUTICAL ENGINEERING

NGT 5 81 UNIVERSITY OF TEXAS - AUSTIN 8895
 A STUDY OF LAND/ATMOSPHERE INTERACTIONS IN THE DEVELOPMENT
 OF MESOSCALE CONVECTIVE SYSTEMS USING A
 05/11/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J S FAMILIETTI
Tech. Officer: GSFC/M S BURRELL
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 5 30008 UNIVERSITY OF TEXAS - AUSTIN 8896
 A CONTINENTAL RIVER FLOWING ALGORITHM FOR GLOBAL WAVE COUPLED
 EARTH SYSTEM MODELS
 10/14/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: J FAMILIETTI
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

NGT 5 30162 UNIVERSITY OF TEXAS - AUSTIN 8897
 ESTIMATING CHANGES IN CONTINENTAL WATER STORAGE FROM SAT-
 ELLITE OBSERVATIONS OF THE TIME DEPENDENT
 08/31/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J S FAMILIETTI, ROD
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

NGT 5 40053 UNIVERSITY OF TEXAS - AUSTIN 8898
 TEXAS SPACE GRANT CONSORTIUM & GLOBE TEACHER TRAINING
 02/12/1997 - 01/31/2001 FY99: \$554,502 Total: \$1,605,383
Prin. Invest.: B D TAPLEY
Tech. Officer: HQ/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPLINARY, OTHER

NGT 5 50004 UNIVERSITY OF TEXAS - AUSTIN 8899
 THE VARIABILITY OF OCEANIC ANGULAR MOMENTUM AND THE ANGULAR
 BUDGET: A GEODETIC APPROACH TO GLOBAL CLIMATE
 11/16/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: C WILSON
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 5 50099 UNIVERSITY OF TEXAS - AUSTIN 8900
 DIFFERENTIAL GENE EXPRESSION IN GERMINATING SPORES
 08/29/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: ROUX
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGINEERING

NGT 5 50239 UNIVERSITY OF TEXAS - AUSTIN 8901
 IMPROVED ESTIMATION OF SURFACE TOPOGRAPHY & VEGETATION
 STRUCTURE BY COMBINING INTERFEROMETRIC SAR
 06/03/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: M CRAWFORD
Tech. Officer: GSFC/K SMITH
CASE Category: 99 - MULTI INTERDISCIPLINARY, OTHER

NGT 9 20 UNIVERSITY OF TEXAS - AUSTIN 8902
 TRAINING GRANT
 07/08/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R H BISHOP
Tech. Officer: JSC/D J PEARSON
CASE Category: 99 - MULTI INTERDISCIPLINARY, OTHER

NGT 9 35 UNIVERSITY OF TEXAS - AUSTIN 8903
 TRAINING GRANT
 06/04/1998 - 06/30/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: R H BISHOP
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 41 - AERONAUTICAL ENGINEERING

NAG 2 1246 UNIVERSITY OF TEXAS - DALLAS 8904
 REPRESENTATIONS & INVERSION OF NONLINEAR SYSTEMS
 08/05/1998 - 09/30/1998 FY99: \$0 Total: \$11,000
Prin. Invest.: L R HUNT
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 3598 UNIVERSITY OF TEXAS - DALLAS 8905
 TIDAL STUDIES IN THE MESOSPHERE
 01/29/1997 - 08/31/1998 FY99: -\$8 Total: \$56,925
Prin. Invest.: C TESEN
Tech. Officer: GSFC/C JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3740 UNIVERSITY OF TEXAS - DALLAS 8906
 MULTIPLE TETHERED SATELLITES FOR IONOSPHERIC STUDIES
 03/06/1997 - 12/31/1998 FY99: \$0 Total: \$72,903
Prin. Invest.: D A HEELIS
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 4187 UNIVERSITY OF TEXAS - DALLAS 8907
 DEVELOPMENT AND DEMONSTRATION OF A ROBUST MICRO-ELECTRO-
 MECHANICAL TRANSDUCER FOR LOW ALTITUDE SATELLITE ANTI-
 COLLISION
 04/01/1997 - 04/30/2000 FY99: \$91,697 Total: \$193,739
Prin. Invest.: D D EARLE
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4371 UNIVERSITY OF TEXAS - DALLAS 8908
 PROPOSAL FOR CONTINUATION OF MARS 96 CO-INVESTIGATOR EXPERI-
 MENT: FY 1996-1998
 04/14/1997 - 01/31/1998 FY99: -\$15 Total: \$24,985
Prin. Invest.: D HODGES, JR.
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4374 UNIVERSITY OF TEXAS - DALLAS 8909
 INTERDISCIPLINARY STUDY OF PLANETARY ATMOSPHERES
 04/25/1997 - 12/31/1998 FY99: \$0 Total: \$60,000
Prin. Invest.: D R HODGES, JR.
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4465 UNIVERSITY OF TEXAS - DALLAS 8910
 THE SPATIAL DISTRIBUTION OF IONOSPHERIC PLASMA AND IGH LATITUDES
 05/27/1997 - 04/30/2000 FY99: \$115,597 Total: \$215,115
 Prin. Invest.: D A HEELIS
 Tech. Officer: GSFC/M M MELLOTT
 CASE Category: 13 - PHYSICS

NAG 5 4644 UNIVERSITY OF TEXAS - DALLAS 8911
 MICRO-TIP ARRAY MASS SPECTROMETER ION SOURCE
 05/30/1997 - 05/31/1999 FY99: \$0 Total: \$71,100
 Prin. Invest.: D H HOFFMAN
 Tech. Officer: GSFC/B CAMPBELL
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4725 UNIVERSITY OF TEXAS - DALLAS 8912
 ADAPTIVE IDENTIFICATION AND CHARACTERIZATION OF PO
 06/18/1997 - 04/30/1998 FY99: \$0 Total: \$62,875
 Prin. Invest.: R COLEY
 Tech. Officer: GSFC/M M MELLOTT
 CASE Category: 13 - PHYSICS

NAG 5 5076 UNIVERSITY OF TEXAS - DALLAS 8913
 PROPOSAL TO COMPLETE SOUNDING ROCKET PROJECT 21.11 4
 05/09/1996 - 04/30/2000 FY99: \$0 Total: \$203,452
 Prin. Invest.: G D EARLE
 Tech. Officer: GSFC/L W GURKIN
 CASE Category: 13 - PHYSICS

NAG 5 5086 UNIVERSITY OF TEXAS - DALLAS 8914
 ROCKET/RADAR INVESTIGATION OF LOWER IONOSPHERIC ELECTRODYNAMICS ASSOCIATED WITH INTENSE MID-LATITUDE
 06/28/1996 - 02/29/2000 FY99: \$29,119 Total: \$218,111
 Prin. Invest.: R A HEELIS
 Tech. Officer: GSFC/L W GURKIN
 CASE Category: 13 - PHYSICS

NAG 5 6534 UNIVERSITY OF TEXAS - DALLAS 8915
 EXPANSION OF REMOTE SENSING FACILITIES IN THE GEOSCIENCES DEPARTMENT AT THE UNIVERSITY OF TEXAS AT
 10/23/1997 - 09/30/1999 FY99: \$0 Total: \$128,308
 Prin. Invest.: R STERN
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7309 UNIVERSITY OF TEXAS - DALLAS 8916
 LATITUDE, LONGITUDE, AND SOLAR CYCLE VARIATION OF LOW-LATITUDE F-REGION ION DRIFTS
 04/22/1998 - 04/30/1999 FY99: \$16,000 Total: \$32,000
 Prin. Invest.: D R COLEY
 Tech. Officer: GSFC/M MELLOTT
 CASE Category: 11 - ASTRONOMY

NAG 5 7916 UNIVERSITY OF TEXAS - DALLAS 8917
 GROUP TRAVEL FOR U.S. PARTICIPANTS IN THE 19TH TEXAS SYMPOSIUM ON RELATIVISTIC ASTROPHYSICS
 12/09/1998 - 11/30/1999 FY99: \$8,000 Total: \$8,000
 Prin. Invest.: E J FENYVES
 Tech. Officer: GSFC/L KALUZIENSKI
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4492 UNIVERSITY OF TEXAS - DALLAS 8918
 THE SPATIAL DISTRIBUTION OF IONOSPHERIC PLASMA AND FIELD STRUCTURE OF HIGH LATITUDES
 05/16/1995 - 03/31/1999 FY99: \$0 Total: \$137,140
 Prin. Invest.: R A HEELIS
 Tech. Officer: HQ/J D BOHLIN
 CASE Category: 13 - PHYSICS

NGT 51665 UNIVERSITY OF TEXAS - DALLAS 8919
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/08/1996 - 09/30/1997 FY99: -\$1,190 Total: \$20,810
 Prin. Invest.: L TAMIL
 Tech. Officer: HQ/D HOLLAND
 CASE Category: 45 - ELECTRICAL ENGR

NGT 5 23 UNIVERSITY OF TEXAS - DALLAS 8920
 THE RELATIONSHIPS BETWEEN SPATIAL STRUCTURE IN THE MAGNETIC FIELD PERTURBATIONS AND THE ELECTRIC...
 07/15/1996 - 07/14/1999 FY99: \$0 Total: \$44,000
 Prin. Invest.: R A HELLIS
 Prin. Invest.: NONE
 Tech. Officer: GSFC/G A SOFFEN, GSFC/R PFAFF
 CASE Category: 13 - PHYSICS

NGT 5 50058 UNIVERSITY OF TEXAS - DALLAS 8921
 THEORY, MODELING, NUMERICAL SIMULATION, AND EXPERIMENTAL FIBER NON-LINEARITIES IN TIME-ALIGNED WDM
 08/26/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
 Prin. Invest.: L TAAMIL/RUIZ
 Tech. Officer: GSFC/A NURRIDIN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1012 UNIVERSITY OF TEXAS - EL PASO 8922
 MONITORING SOFTWARE THROUGH INTEGRITY CONSTRAINTS
 09/21/1995 - 08/31/2000 FY99: \$0 Total: \$180,487
 Prin. Invest.: A Q GATES
 Tech. Officer: ARC/M R LOWRY, ARC/G S LEE
 CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1138 UNIVERSITY OF TEXAS - EL PASO 8923
 VERIFICATION OF NASA MISSION-CRITICAL SOFTWARE WITHOUT SACRIFICING PERFORMANCE
 07/14/1997 - 06/30/2000 FY99: \$59,000 Total: \$199,887
 Prin. Invest.: P J TELLER
 Tech. Officer: ARC/LOWRY
 CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1820 UNIVERSITY OF TEXAS - EL PASO 8924
 NOVEL CDS-CTDE SOLAR CELL STRUCTURES ON FLEXIBLE METAL FOIL SUBSTRATES
 04/16/1996 - 09/17/1999 FY99: \$0 Total: \$264,240
 Prin. Invest.: V P SINGH, J C MCCLURE, G B LUSH
 Tech. Officer: GRC/E B CLARK
 CASE Category: 47 - METAL & MATERIALS ENGR

NAG 4 150 UNIVERSITY OF TEXAS - EL PASO 8925
 (FAR) AN IMAGING FRAMEWORK FOR AERODYNAMIC, FLUID MECHANIC, AND HEAT TRANSFER SCIENTIFIC-GRADE
 03/03/1998 - 02/27/2001 FY99: \$100,000 Total: \$200,000
 Prin. Invest.: R WICKER
 Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4155 UNIVERSITY OF TEXAS - EL PASO 8926
 PACE/MSET AWARD *EXCELLENCE IN TECHNOLOGY, ENGINEE (EXCITES)
 03/24/1997 - 10/31/1998 FY99: \$0 Total: \$144,558
Prin. Invest.: J HERRERA
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6163 UNIVERSITY OF TEXAS - EL PASO 8927
 INTRODUCTORY TRAINING FOR PRE-SERVICE TEACHERS IN
 08/01/1997 - 07/31/2000 FY99: \$20,000 Total: \$60,000
Prin. Invest.: V HARDER
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6795 UNIVERSITY OF TEXAS - EL PASO 8928
 TILTLE THE BALANCE: CLIMATE VARIABILITY AND WATER RESOURCE
 MANAGEMENT IN THE SOUTHWEST
 02/19/1998 - 01/31/1999 FY99: \$0 Total: \$75,447
Prin. Invest.: C GROAT
Tech. Officer: GSFC/N ANNE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1393 UNIVERSITY OF TEXAS - EL PASO 8929
 R/S "PLASTIC OPTICAL FIBERS FOR ELECTRO-OPTIC ALL- OPTIC AND
 OPTICAL SENSING APPLICATIONS"
 08/18/1997 - 08/17/1999 FY99: \$100,000 Total: \$199,999
Prin. Invest.: C DIRK
Tech. Officer: MSFC/B PENN
CASE Category: 13 - PHYSICS

NAG 8 1645 UNIVERSITY OF TEXAS - EL PASO 8930
 INVESTIGATION OF FRICTION STIR WELDING
 09/30/1999 - 09/30/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: J C MCCLURE
Tech. Officer: MSFC/A BEAM, MSFC/W LOVE
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 9 920 UNIVERSITY OF TEXAS - EL PASO 8931
 BASIC STUDIES OF CDTE SOLAR CELLS
 12/18/1996 - 10/01/1999 FY99: \$91,650 Total: \$291,182
Prin. Invest.: G LUSH
Tech. Officer: JSC/F BEIGMONTE
CASE Category: 45 - ELECTRICAL ENGR

NAG 9 1099 UNIVERSITY OF TEXAS - EL PASO 8932
 DATA FUSION METHODOLOGISTS FOR DAMAGE MONITORING OF AERO-
 SPACE STRUCTURES
 05/15/1999 - 05/14/2002 FY99: \$55,189 Total: \$55,189
Prin. Invest.: C FERREGUT
Tech. Officer: JSC/A R ROCHA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 1100 UNIVERSITY OF TEXAS - EL PASO 8933
 FUNDAMENTAL STUDIES OF CRATERING PHENOMMENA
 05/21/1999 - 05/31/2002 FY99: \$51,685 Total: \$51,685
Prin. Invest.: L E MURR
Tech. Officer: JSC/F HORZ
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1171 UNIVERSITY OF TEXAS - EL PASO 8934
 EXPERIMENTS FOR THE GRANTS AND COOP AGREEMENT HANDBOOKS
 09/28/1999 - 09/29/2000 FY99: \$99,344 Total: \$99,344
Prin. Invest.: L E MURR
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 47 - METAL & MATERIALS ENGR

NAG10 225 UNIVERSITY OF TEXAS - EL PASO 8935
 CONTINUOUS HAZARD TRACKING & FAILURE ANALYSIS METHODOLOGY
 09/17/1997 - 09/16/1999 FY99: \$99,600 Total: \$199,383
Prin. Invest.: R QUINTANA
Tech. Officer: KSC/B DELIWALA
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 97 UNIVERSITY OF TEXAS - EL PASO 8936
 THE UNIVERSITY OF TEXAS AT EL PASO NETWORK RESOURCES AND
 TRAINING SITES
 08/15/1995 - 08/14/2000 FY99: \$683,000 Total: \$2,232,999
Prin. Invest.: M KOLITSKY
Tech. Officer: GSFC/J BENNETT
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 207 UNIVERSITY OF TEXAS - EL PASO 8937
 DISTANCE LEARNING STRATEGIES PROMOTING MINORITY AC AND
 RESOURCES
 06/11/1997 - 05/31/2000 FY99: \$93,857 Total: \$392,605
Prin. Invest.: M A KOLITSKY
Tech. Officer: GSFC/R D EASON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 209 UNIVERSITY OF TEXAS - EL PASO 8938
 PAN AMERICAN CENTER FOR EARTH AND ENVIRONMENTAL ST
 07/24/1997 - 06/30/2000 FY99: \$1,004,815 Total: \$2,799,967
Prin. Invest.: S STARKS
Tech. Officer: GSFC/J MALONE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 137 UNIVERSITY OF TEXAS - EL PASO 8939
 R/S "ANALYSIS OF FRICTION STIR WELDING"
 05/27/1997 - 05/26/1999 FY99: \$0 Total: \$398,533
Prin. Invest.: J MCCLURE
Tech. Officer: MSFC/J DING
CASE Category: 47 - METAL & MATERIALS ENGR

NCCW 89 UNIVERSITY OF TEXAS - EL PASO 8940
 PAN AMERICAN CENTER FOR EARTH AND ENVIRONMENTAL ST UDIES
 08/10/1995 - 06/30/2000 FY99: -\$167,053 Total: \$2,733,293
Prin. Invest.: S A STARKS
Tech. Officer: HQ/M MATEU
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 70007 UNIVERSITY OF TEXAS - EL PASO 8941
 GRADUATE STUDENTS RESEARCH PROGRAM - STUDENTS: DI
 09/06/1997 - 06/30/1998 FY99: -\$4,345 Total: \$17,655
Prin. Invest.: R ARROWOOD
Tech. Officer: GSFC/STOUTSENBERGER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 2210 UNIVERSITY OF TEXAS AT BROWNSVILLE 8942
EXPLOITING STRUCTURE: INTRODUCTION AND MOTIVATION
02/18/1993 - 03/31/1999 FY99: -\$577 Total: \$103,514
Prin. Invest.: Z L XU
Tech. Officer: GSFC/G E MOSIER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 776 UNIVERSITY OF TEXAS AT BROWNSVILLE 8943
HISPANIC MOTHER DAUGHTER PROGRAM
03/24/1995 - 08/31/1998 FY99: \$0 Total: \$265,074
Prin. Invest.: M MANCILLAS
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 801 UNIVERSITY OF TEXAS AT BROWNSVILLE 8944
PREPARING TEACHERS TO TEACH SCI STUDENTS INCLUSIVE SETTINGS
07/28/1995 - 08/14/1999 FY99: \$20,000 Total: \$200,000
Prin. Invest.: R RAMIREZ, JR., K I NORMAN
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1054 UNIVERSITY OF TEXAS AT BROWNSVILLE 8945
PRE MATH, SCIENCE, ENGINEERING & TECH SPT PROGRAM
09/18/1998 - 08/31/1999 FY99: \$37,671 Total: \$67,671
Prin. Invest.: O RIVAS
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1064 UNIVERSITY OF TEXAS AT BROWNSVILLE 8946
NRA PACE/MSET BLAST-OFF TO AN ENGINEERING CAREER
01/07/1999 - 01/06/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: N A BASALY
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1383 UNIVERSITY OF TEXAS AT SAN ANTONIO 8947
PARALLEL AERODYNAMICS SIMULATION IN DISTRIBUTED ENVIRONMENTS
09/14/1999 - 08/31/2000 FY99: \$94,961 Total: \$94,961
Prin. Invest.: A T CHRONPOULOS
Tech. Officer: ARC/B J COLLINS, ARC/G S LEE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2060 UNIVERSITY OF TEXAS AT SAN ANTONIO 8948
RESEARCH & EDUCATION IN PROBABILISTIC STRUCTURAL ANALYSIS & RELIABILITY
07/10/1997 - 01/31/2000 FY99: \$0 Total: \$400,000
Prin. Invest.: L BOYCE
Tech. Officer: GRC/C C CHAMIS, GRC/S S PAI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 773 UNIVERSITY OF TEXAS AT SAN ANTONIO 8949
FUNDAMENTAL SKILLS INTELLIGENT TUTORING SYSTEMS PROJECT
01/27/1995 - 08/31/1998 FY99: -\$314 Total: \$224,686
Prin. Invest.: R DIEM, D S KATIMS
Tech. Officer: JSC/J A ATKINSON
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 9 950 UNIVERSITY OF TEXAS AT SAN ANTONIO 8950
TEXAS PREFRESHMAN ENGINEERING PROGRAM
07/16/1997 - 05/26/2000 FY99: \$198,000 Total: \$594,812
Prin. Invest.: M P BERRIOZABAL
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 21 - MATHEMATICS

NAG 9 982 UNIVERSITY OF TEXAS AT SAN ANTONIO 8951
MARS CRYOGENIC STORAGE & DISTRIBUTION THERMAL MODELING
11/25/1997 - 12/31/1999 FY99: \$0 Total: \$15,500
Prin. Invest.: A KARIMI
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 41 - AERONAUTICAL ENGR

NAG10 155 UNIVERSITY OF TEXAS AT SAN ANTONIO 8952
MULTI RESOLUTION IMAGE ANALYSIS FOR ENVIRONMENTAL MAPPING APPLICATIONS
03/27/1995 - 04/02/2000 FY99: \$99,700 Total: \$498,500
Prin. Invest.: M D DESAI
Tech. Officer: KSC/J C SAAER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 90012 UNIVERSITY OF TEXAS AT SAN ANTONIO 8953
NASA UNDERGRADUATE SCHOLAR AWARDS FOR RESEARCH ()
12/19/1996 - 08/14/1998 FY99: \$0 Total: \$110,590
Prin. Invest.: L R WILLIAMS
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 90045 UNIVERSITY OF TEXAS AT SAN ANTONIO 8954
USAR
02/14/1997 - 08/14/1998 FY99: \$0 Total: \$46,480
Prin. Invest.: L WILLIAMS
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

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NAG 5 6312 BRIGHAM YOUNG UNIVERSITY 8955
AN INEXPENSIVE SYNTHETIC APERTURE RADAR FOR GEOPHYSICAL RESEARCH
10/10/1997 - 03/31/1998 FY99: \$0 Total: \$133,010
Prin. Invest.: D LONG
Tech. Officer: GSFC/M BALTUCK
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6782 BRIGHAM YOUNG UNIVERSITY 8956
COMPUTING RESOURCES FOR ENHANCED ENVIRONMENTAL ASSESSMENT AND RESEARCH CAPABILITIES
01/16/1998 - 01/14/1999 FY99: \$0 Total: \$129,984
Prin. Invest.: M A JENSEN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7711 BRIGHAM YOUNG UNIVERSITY 8957
FDG FOR 'GEOLOGIC AND ARCHAEOLOGIC APPLICATIONS OF HIGH-RESOLUTION SAR' PI: DAVID V. ARNOLD, SENH98
09/28/1998 - 12/31/1999 FY99: \$0 Total: \$62,468
Prin. Invest.: D V ARNOLD
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 8746 BRIGHAM YOUNG UNIVERSITY 8958
POLAR ICE SHEET MONITORING FROM LONG TERM SCATTEROMETER AND RADIOMETER OBSERVATIONS
08/18/1999 - 08/31/2000 FY99: \$87,484 Total: \$87,484
Prin. Invest.: D LONG
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30114 **BRIGHAM YOUNG UNIVERSITY** **8959**
 STATISTICAL IMPROVEMENTS IN WIND SCATTEROMETRY
 10/01/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: D LONG
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52877 **BRIGHAM YOUNG UNIVERSITY** **8960**
 HEAT ADDITION IN A FIXED GEOMETRY SCRAMJET ENGINE.
 08/24/1999 - 08/15/2001 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R DAINES
Tech. Officer: MSFC/J DOWDY
CASE Category: 46 - MECHANICAL ENGR

NAG 1 1314 **UNIVERSITY OF UTAH** **8961**
 FARS CIRRUS MEASUREMENT FOR FIRE II
 07/23/1991 - 06/30/1998 FY99: -\$1 Total: \$388,000
Prin. Invest.: K SASSEN
Tech. Officer: LARC/DS MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1718 **UNIVERSITY OF UTAH** **8962**
 CLOUD SCALE NUMERICAL MODELING OF THE ARCTIC BOUNDARY LAYER
 04/25/1995 - 03/19/1999 FY99: -\$70,654 Total: \$151,346
Prin. Invest.: S K KRUEGER
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1719 **UNIVERSITY OF UTAH** **8963**
 RADIATIVE TRANSFER AND SATELLITE REMOTE SOUNDING OF CIRRUS
 CLOUDS USING FIRE II IFO DATA
 04/14/1995 - 04/13/1998 FY99: -\$2,746 Total: \$102,854
Prin. Invest.: K N LIU, S C OU
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1903 **UNIVERSITY OF UTAH** **8964**
 APPLICATION OF FIRE PHASE I AND II RESULTS TO MODEL PARAMETER-
 IZATION AND EXTENSION TO OTHER
 02/18/1997 - 02/28/1998 FY99: -\$1,857 Total: \$34,349
Prin. Invest.: G MACE
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1984 **UNIVERSITY OF UTAH** **8965**
 THERMODYNAMIC AND STRUCTURAL PROPERTIES OF POLYIMIDES &
 IMIDE MODEL COMPOUNDS FROM EXP & SIM
 12/23/1997 - 12/22/1998 FY99: -\$845 Total: \$19,155
Prin. Invest.: D SMITH
Tech. Officer: LARC/J A HINKLEY
CASE Category: 12 - CHEMISTRY

NAG 1 2048 **UNIVERSITY OF UTAH** **8966**
 CLOUD SCALE NUMERICAL MODELING OF THE ARCTIC BOUNDARY LAYER
 04/01/1998 - 06/30/2001 FY99: \$112,653 Total: \$184,653
Prin. Invest.: S K KRUEGER
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2083 **UNIVERSITY OF UTAH** **8967**
 FACILITY FOR ATMOSPHERIC REMOTE SENSING (FARS) CIRRUS MEASUREMENTS FOR FIRE III
 06/30/1998 - 05/31/2001 FY99: \$33,000 Total: \$90,000
Prin. Invest.: K SASSON
Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1042 **UNIVERSITY OF UTAH** **8968**
 GUIDANCE OF NONLINEAR NONMINIMUM - PHASE DYNAMIC SYSTEMS
 05/01/1996 - 01/31/1999 FY99: \$0 Total: \$68,684
Prin. Invest.: S DEVASIA
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1106 **UNIVERSITY OF UTAH** **8969**
 EXPERIMENTAL & MODELING PROGRAM FOR THE FORMULATION OF CONCEPTUAL RELATIONSHIPS BETWEEN CONTRAIL...
 01/21/1997 - 03/31/1999 FY99: \$0 Total: \$44,050
Prin. Invest.: K SASSEN
Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1277 **UNIVERSITY OF UTAH** **8970**
 CELLULAR AUTOMATION-BASED ENHANCEMENT OF AIR TRAFFIC
 01/04/1999 - 12/31/1999 FY99: \$24,986 Total: \$24,986
Prin. Invest.: S DEVASIA
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 3784 **UNIVERSITY OF UTAH** **8971**
 MODELING OF CARDIOVASCULAR RESPONSE TO WEIGHTLESSNESS
 03/15/1997 - 12/31/1998 FY99: \$0 Total: \$124,459
Prin. Invest.: K SHARP
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3802 **UNIVERSITY OF UTAH** **8972**
 DEVELOPMENT OF EARTH OCCULTATION TECHNIQUE ABOVE 1 HIGH ENERGY EMISSION FROM GAMMA-RAY BURSTS, \$39.9
 11/27/1996 - 11/30/1999 FY99: \$0 Total: \$77,983
Prin. Invest.: B L DINGUS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3902 **UNIVERSITY OF UTAH** **8973**
 ORBITING ARRAY OF WIDE-ANGLE LIGHT COLLECTORS (OWL ORBITING "EYES" TO STUDY AIR SHOWERS INITIATED BY
 03/03/1997 - 02/29/2000 FY99: \$0 Total: \$120,646
Prin. Invest.: E C LOH
Tech. Officer: GSFC/J F ORMES
CASE Category: 11 - ASTRONOMY

NAG 5 4452 **UNIVERSITY OF UTAH** **8974**
 RADIATION ANTICARCINOGENESIS BY THIAZOLIDINE PRODR
 05/20/1997 - 02/28/2000 FY99: \$0 Total: \$362,768
Prin. Invest.: R WARTERS
Tech. Officer: GSFC/W SHIMMERLING
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 5195 UNIVERSITY OF UTAH 8975
 PROPOSAL FOR SUPPORT OF THE 26TH INTERNATIONAL COSMIC RAY
 CONFERENCE, UNIVERSITY OF UTAH 1999
 05/21/1998 - 03/31/2000 FY99: \$28,880 Total: \$58,620
 Prin. Invest.: E LOH
 Tech. Officer: GSFC/B A MERRITT
 CASE Category: 13 - PHYSICS

NAG 5 6458 UNIVERSITY OF UTAH 8976
 CLOUD PROPERTY & SURFACE RADIATION OBSERVATIONS & DIAGNOS-
 TICS IN SUPPORT OF EOS, CERES, MODIS & MISR
 10/14/1997 - 09/30/2000 FY99: \$212,280 Total: \$1,133,021
 Prin. Invest.: G MACE
 Tech. Officer: GSFC/D STARR
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6646 UNIVERSITY OF UTAH 8977
 ENHANCEMENT OF CAPABILITIES IN HYPERSPECTRAL AND REMOTE
 SENSING FOR ENVIRONMENTAL ASSESSMENT
 12/04/1997 - 11/30/1998 FY99: \$0 Total: \$91,865
 Prin. Invest.: G HEPNER
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7447 UNIVERSITY OF UTAH 8978
 CONTINUED SUPPORT OF THE GCTE FOCUS 1 OFFICE (ECOSYSTEM
 PHYSIOLOGY)
 06/19/1998 - 07/31/2001 FY99: \$147,266 Total: \$223,739
 Prin. Invest.: J R EHLERINGER
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7521 UNIVERSITY OF UTAH 8979
 INVESTIGATION OF PHYSICAL PROCESS DYNAMICS DURING COLD SEA-
 SON FLOODING
 06/18/1998 - 06/14/2001 FY99: \$0 Total: \$37,247
 Prin. Invest.: D TARBOTON
 Tech. Officer: GSFC/E ENGMAN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7828 UNIVERSITY OF UTAH 8980
 EGRET OBSERVING TIME REQUEST FOR GAMMA-RAY BURSTS
 11/16/1998 - 11/30/1999 FY99: \$14,997 Total: \$14,997
 Prin. Invest.: B J DINGUS
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7871 UNIVERSITY OF UTAH 8981
 THE GLACIER DYNAMICS AND MASS FLUX OF ANTARCTIC ICE STREAMS
 FROM RADARSAT INSAR
 01/21/1999 - 12/31/1999 FY99: \$47,997 Total: \$47,997
 Prin. Invest.: R FORESTER
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8277 UNIVERSITY OF UTAH 8982
 ACCRETION ONTO SUPERMASSIVE BLACK HOLES: OBSERVATIONAL SIG-
 NALS FROM 3-D33-DIMENSION (ATP 98)
 03/02/1999 - 02/29/2000 FY99: \$26,799 Total: \$26,799
 Prin. Invest.: B C BROMLEY
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8339 UNIVERSITY OF UTAH 8983
 GLOBAL DISTRIBUTION OF LIGHTNING FROM THE DTD AND RELATED GLO-
 BAL DISTRIBUTION OF MCSS FROM TH
 04/26/1999 - 03/31/2000 FY99: \$53,948 Total: \$53,948
 Prin. Invest.: E ZIPSER
 Tech. Officer: GSFC/J DODGE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8550 UNIVERSITY OF UTAH 8984
 THE SPATIAL AND TEMPORAL CHARACTERISTICS OF HIGH LATITUDE SEA-
 SONAL SNOW MELT AS DETECTED BY PASSIVE
 06/02/1999 - 05/31/2000 FY99: \$56,061 Total: \$56,061
 Prin. Invest.: K JEZEK
 Tech. Officer: GSFC/J C DODGE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8561 UNIVERSITY OF UTAH 8985
 VALIDATION AND TRANSFERABILITY OF TROPICAL RAIN ESTIMATION
 METHODS
 05/17/1999 - 09/30/2000 FY99: \$163,355 Total: \$163,355
 Prin. Invest.: E J ZIPSER
 Tech. Officer: GSFC/O W THIELE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8826 UNIVERSITY OF UTAH 8986
 HIGH ENERGY GAMMA-RAY ASTROPHYSICS WORKSHOP
 09/28/1999 - 08/31/2000 FY99: \$4,987 Total: \$4,987
 Prin. Invest.: M SALAMON
 Tech. Officer: GSFC/L KALUZIENSKI
 CASE Category: 11 - ASTRONOMY

NAGW 3687 UNIVERSITY OF UTAH 8987
 INTERMOUNTAIN NETWORK AND SCIENTIFIC COMPUTATION CENTER
 09/09/1993 - 09/30/1998 FY99: \$0 Total: \$14,974,135
 Prin. Invest.: R PUGMIRE
 Tech. Officer: HQ/W C STAMPER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 1 256 UNIVERSITY OF UTAH 8988
 DEVELOPMENT OF PREDICTIVE CAPABILITIES FOR DAMAGE TOLERANCE
 IN STITCHED COMPOSITE MATERIALS
 05/01/1997 - 04/30/2000 FY99: \$80,287 Total: \$173,183
 Prin. Invest.: D O ADAMS
 Tech. Officer: LARC/J R REEDERS
 CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 851 UNIVERSITY OF UTAH 8989
 WASTE INCINERATION FOR RESOURCE RECOVERY IN REGENERATIVE
 LIFE SUPPORT SYSTEMS
 04/15/1994 - 09/30/1998 FY99: \$0 Total: \$569,049
 Prin. Invest.: J S LIGHTLY, D W PERSHING
 Tech. Officer: ARC/J W FISHER/R MACELROY
 CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 5 297 UNIVERSITY OF UTAH 8990
 CARBON AND OXYGEN ISOTOPE RATIO CO2 FLUX ANALYSES AT THE SOIL,
 CANOPY, AND LANDSCAPE SCALES
 06/16/1998 - 12/31/1999 FY99: \$231,565 Total: \$400,324
 Prin. Invest.: J EHLERINGER
 Tech. Officer: GSFC/D DEERING
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 1 52189 UNIVERSITY OF UTAH 8991
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/12/1998 - 06/30/1999 FY99: \$0 Total: \$0
Prin. Invest.: M D JONES
Tech. Officer: LARC/P S MINER
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 30078 UNIVERSITY OF UTAH 8992
 REMOTE SENSING OF CIRRUS CLOUDS USING MODIS AIRBORNE SENSORS
 09/11/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: K LIU
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30184 UNIVERSITY OF UTAH 8993
 IMPLICATIONS OF ARCTIC WARMING AS DETERMINED BY SNOWMELT
 ONSET DATES OBSERVED WITH REMOTE SENSE
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R R FORSTER
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30202 UNIVERSITY OF UTAH 8994
 THE EFFECT OF ATMOSPHERIC CO₂: SEEING THE GRASSLAND THROUGH THE
 BLADES/STUDENT: BRENT HELLIKER
 08/19/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J R EHLERINGER
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50088 UNIVERSITY OF UTAH 8995
 CARDIOVASCULAR RESPONSE TO GRAVITATIONAL ACCELERATION
 HYDRAULIC MOCK CIRCULATION SYSTEM
 09/11/1997 - 06/30/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: K SHARP
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1871 UTAH STATE UNIVERSITY 8996
 AN EXPERIMENTAL AND NUMERICAL INVESTIGATION OF TURBULENT VORTEX
 BREAKDOWN AND AIRCRAFT WAKES
 10/02/1996 - 03/31/1999 FY99: \$1 Total: \$99,056
Prin. Invest.: D SPALL
Tech. Officer: LARC/T B GATSKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1999 UTAH STATE UNIVERSITY 8997
 EXPERIMENTAL INVESTIGATION OF WING TIP VORTEX
 02/03/1998 - 12/02/1999 FY99: \$1 Total: \$52,001
Prin. Invest.: A E ANDERSON
Tech. Officer: LARC/T B GATSKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 1484 UTAH STATE UNIVERSITY 8998
 THE FLOW OF PLASMA IN THE SOLAR TERRESTRIAL ENVIRONMENT
 11/26/1990 - 09/30/1999 FY99: \$0 Total: \$2,127,745
Prin. Invest.: R W SCHUNK
Tech. Officer: GSFC/T J BIRMINGHAM
CASE Category: 13 - PHYSICS

NAG 5 4469 UTAH STATE UNIVERSITY 8999
 SATELLITE STUDIES OF STORM TIME MID- AND LOW-LATITUDE DYNAMICS
 05/21/1997 - 03/31/2000 FY99: \$80,000 Total: \$231,000
Prin. Invest.: D G FEJER
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 5044 UTAH STATE UNIVERSITY 9000
 AN EXPERIMENT TO STUDY SPORADIC SODIUM LAYERS IN THE EARTH'S
 MESOSPHERE AND LOWER THERMOSPHERE
 07/28/1995 - 07/31/1999 FY99: \$0 Total: \$143,227
Prin. Invest.: D M SWENSON
Tech. Officer: GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5046 UTAH STATE UNIVERSITY 9001
 A ROCKET INVESTIGATION OF MESOSPHERIC EDDY DIFFUSION
 EFFECTS ON AIRGLOW & ODD OXYGEN CHEMISTRY
 08/03/1995 - 06/30/2000 FY99: \$0 Total: \$271,756
Prin. Invest.: J C ULWICK
Tech. Officer: GSFC/P H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5081 UTAH STATE UNIVERSITY 9002
 MESOSPHERE-THERMOSPHERE EMISSIONS FOR OZONE REMOTE SENSING
 (METEORS)
 06/14/1996 - 07/31/1999 FY99: \$0 Total: \$323,181
Prin. Invest.: P ESPY
Tech. Officer: GSFC/L GURKIN
CASE Category: 13 - PHYSICS

NAG 5 5187 UTAH STATE UNIVERSITY 9003
 CODA - COUPLING OF DYNAMICS AND AURORA FUNDING FOR FIRST
 YEAR OF GRANT
 03/30/1998 - 12/31/1999 FY99: \$47,000 Total: \$197,040
Prin. Invest.: C M SWENSON
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5189 UTAH STATE UNIVERSITY 9004
 A ROCKET INVESTIGATION OF ELECTRON DENSITY STRUCTURE,
 E-FIELDS AND AEROSOLS DURING PMSE AND N
 03/27/1998 - 11/30/1999 FY99: \$194,500 Total: \$328,248
Prin. Invest.: J C ULWICK
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5245 UTAH STATE UNIVERSITY 9005
 FIRST YEAR OF A THREE YEAR GRANT NAG5-5245 PI DR. JAMES C.
 ULWICK
 03/29/1999 - 03/28/2002 FY99: \$144,881 Total: \$144,881
Prin. Invest.: J C ULWICK
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6598 **UTAH STATE UNIVERSITY** **9006**
 ENHANCEMENT OF REMOTE SENSING ANALYSIS CAPABILITIES AT UTAH
 STATEUNIVERSITY
 12/06/1997 - 10/31/1999 FY99: \$0 Total: \$397,528
Prin. Invest.: R GILLIES
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6792 **UTAH STATE UNIVERSITY** **9007**
 TEMPERATURE-DEPENDENT RATE CONSTANTS FOR NO(V)+O VIBRA-
 TIONAL ENERGYTRANSFER
 02/17/1998 - 08/31/1999 FY99: \$0 Total: \$86,140
Prin. Invest.: J DODD, NONE
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7597 **UTAH STATE UNIVERSITY** **9008**
 SNOW HYDROLOGY: THE PARAMETERIZATION OF SUBGRID PROCESSES
 WITHIN A PHYSICALLY BASED SNOW ENERGY
 07/21/1998 - 07/14/2001 FY99: \$0 Total: \$163,240
Prin. Invest.: D G TARBOTON
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 8227 **UTAH STATE UNIVERSITY** **9009**
 "THE FLOW OF PLASMA IN THE SOLAR TERRESTRIAL ENVIRONMENT"
 02/24/1999 - 03/31/2000 FY99: \$280,000 Total: \$280,000
Prin. Invest.: R W SCHUNK
Tech. Officer: GSFC/J M GREBOWSKY
CASE Category: 11 - ASTRONOMY

NAG 5 8638 **UTAH STATE UNIVERSITY** **9010**
 PLASMAPAUSE AND ITS ENVIRONMENT: A PROPOSAL FOR COOPERATIVE
 STUDIES
 08/11/1999 - 07/31/2000 FY99: \$24,000 Total: \$24,000
Prin. Invest.: B G FEJER
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 9 999 **UTAH STATE UNIVERSITY** **9011**
 CROP OPTIMIZATION AND FAILURE ANALYSIS USING CO2
 04/25/1998 - 04/24/2000 FY99: \$148,109 Total: \$239,109
Prin. Invest.: B G BUGBEE, L R JOHNSON
Tech. Officer: KSC/R M WHEELER
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAS 1 20467 **UTAH STATE UNIVERSITY** **9012**
 SOUNDING OF THE ATMOSPHERE USING BROADBAND EMISSION RADIOM-
 ETRY (SABER) INSTRUMENT
 03/28/1995 - 01/28/2000 FY99: \$3,113,299 Total: \$15,930,869
Prin. Invest.: J ULWICK, D J BAKER, R ESPLIN
Tech. Officer: LARC/M D VANEK, LARC/T C DENKINS
CASE Category: 42 - ASTRONAUTICAL ENGR

NAS 1 98156 **UTAH STATE UNIVERSITY** **9013**
 GIFTS ACCOMMODATION AND DEFINITION STUDIES
 11/16/1998 - 06/30/1999 FY99: \$157,956 Total: \$157,956
Prin. Invest.: R J HUPPI, G E BINGHAM
Tech. Officer: LARC/V S PARSONS, LARC/D E HINTON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 99116 **UTAH STATE UNIVERSITY** **9014**
 RESEARCH SUPPORT FOR GIFTS PROGRAM
 05/11/1999 - 09/30/1999 FY99: \$180,000 Total: \$180,000
Prin. Invest.: G E BINGHAM
Tech. Officer: LARC/V S PARSONS, LARC/F W HARRISON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 37110 **UTAH STATE UNIVERSITY** **9015**
 STUDY ENTITLED "RESEARCH ON ORBITAL PLASMA-ELECTRODYNAMICS."
 05/04/1987 - 03/31/1998 FY99: -\$1 Total: \$200,999
Prin. Invest.: R W SCHUNK, K W SCHUNK
Tech. Officer: MSFC/R LAKE, MSFC/B DUNCAN
CASE Category: 42 - ASTRONAUTICAL ENGR

NAS 8 97107 **UTAH STATE UNIVERSITY** **9016**
 REMOTE SENSING AND MODELING OF URBAN LANDCOVER
 01/29/1997 - 01/28/2000 FY99: \$0 Total: \$135,127
Prin. Invest.: R R GILLIES
Tech. Officer: MSFC/T MILLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 98221 **UTAH STATE UNIVERSITY** **9017**
 ELECTRONIC PROPERTIES OF MATERIALS WITH APPLICATION TO SPACE-
 CRAFT CHARGING
 06/18/1998 - 06/17/2000 FY99: \$49,025 Total: \$138,221
Prin. Invest.: J R DENNISON
Tech. Officer: MSFC/S PEARSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 1 265 **UTAH STATE UNIVERSITY** **9018**
 EXPERIMENTAL AND ANALYTICAL ASSESSMENT OF USING LARGE FOCAL
 PLANE ARRAYS AND ONBOARD DATA SELECTIO
 09/30/1997 - 01/31/1998 FY99: -\$1 Total: \$74,740
Prin. Invest.: G E BINGHAM, R J HUPPI
Tech. Officer: LARC/V S PARSONS, LARC/D E HINTON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 307 **UTAH STATE UNIVERSITY** **9019**
 IR SOUNDER DATA COMPRESSION ISSUES IN SUPPORT OF AGS GOES
 ADVANCED IMAGER-SOUNDER
 07/28/1998 - 06/30/1999 FY99: \$15,061 Total: \$72,121
Prin. Invest.: G BINGHAM, G E BINGHAM
Tech. Officer: LARC/V S PARSONS, LARC/A M LARAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 831 **UTAH STATE UNIVERSITY** **9020**
 SEED-TO-SEED EXPERIMENT (EXPERIMENTS ON RUSSIAN SPACE STA-
 TION MIR)
 10/26/1993 - 12/31/1999 FY99: \$0 Total: \$3,535,217
Prin. Invest.: W F CAMPBELL, G E BINGHAM, D L BUBENHEIM
Tech. Officer: ARC/G C JAHNS, ARC/C M WINGET
CASE Category: 55 - AGRICULTURE

NCC 2 5325 **UTAH STATE UNIVERSITY** **9021**
 MICROBIOLOGICAL SENSING SYSTEM FOR A EUROPA PROBE APPLICA-
 TION
 05/17/1999 - 05/14/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: L POWERS, C ESTES, W ELLIS, JR.
Tech. Officer: ARC/M T FLYNN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 5 219 **UTAH STATE UNIVERSITY** **9022**
 HOLOGRAPHIC LIDAR CONCEPTS AND APPLICATIONS
 08/19/1997 - 12/14/1999 FY99: \$24,210 Total: \$47,030
Prin. Invest.: T D WILKERSON
Tech. Officer: GSFC/G SCHWEMMER
CASE Category: 11 - ASTRONOMY

NCC 8 121 **UTAH STATE UNIVERSITY** **9023**
 THERMAL ION DYNAMICS EXPERIMENT (TIDE)
 11/01/1998 - 10/31/1998 FY99: -\$7 Total: \$105,046
Prin. Invest.: W J RAITT
Tech. Officer: MSFC/T E MOORE, MSFC/M O CHANDLER
CASE Category: 13 - PHYSICS

NCC 8 162 **UTAH STATE UNIVERSITY** **9024**
 ANALYSIS OF SPATIAL AND TEMPORAL VARIABILITY OF THE WARM SEA-
 SON LAND SURFACE ENERGY BUDGET
 11/02/1998 - 10/31/2001 FY99: \$49,745 Total: \$49,745
Prin. Invest.: R R GILLIES
Tech. Officer: MSFC/W LAPENTA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC13 18 **UTAH STATE UNIVERSITY** **9025**
 NASA-SPONSORED VISTING INVESTIGATOR PROGRAM AFFILIATE CENTER
 FOR THE WESTERN UNITED STATES
 09/12/1996 - 12/31/1999 FY99: \$181,250 Total: \$474,701
Prin. Invest.: D BAKER
Tech. Officer: SSC/R MCKELLIP
CASE Category: 79 - SOCIAL SCIENCE, OTHER

NGT 5 40047 **UTAH STATE UNIVERSITY** **9026**
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM
 02/11/1997 - 01/31/2001 FY99: \$481,250 Total: \$1,304,372
Prin. Invest.: D BAKER
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50011 **UTAH STATE UNIVERSITY** **9027**
 LAND COVER CHANGE IN THE GREAT BASIN
 11/25/1996 - 08/31/1999 FY99: -\$8,389 Total: \$57,611
Prin. Invest.: C CALDWELL
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52866 **UTAH STATE UNIVERSITY** **9028**
 MONITORING OZONE CONCENTRATIONS AND INJURY IN HIGH ELEVATION
 DOUGLAS FIR NEAR SALT LAKE CITY
 07/24/1998 - 06/30/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: F BAKER
Tech. Officer: MSFC/J F DOWDY
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT10 52609 **UTAH STATE UNIVERSITY** **9029**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 04/18/1996 - 09/30/1999 FY99: \$3,666 Total: \$69,666
Prin. Invest.: D L BISHOP
Tech. Officer: KSC/R WHEELER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT10 52617 **UTAH STATE UNIVERSITY** **9030**
 PLANT RESIDE DEGRADATION PRODUCTS IN REGENERATIVE LIFE SUP-
 PORT SYSTEMS
 07/14/1998 - 07/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: P GROSSEL
Tech. Officer: KSC/R WHEELER
CASE Category: 59 - LIFE SCIENCE, OTHER

VERMONT

NAG 5 6118 **MIDDLEBURY COLLEGE** **9031**
 CORONAL MASS EJECTIONS AND LARGE-SCALE EVOLUTION O
 08/08/1997 - 09/14/2000 FY99: \$36,922 Total: \$87,880
Prin. Invest.: P WOLFSON
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 8020 **MIDDLEBURY COLLEGE** **9032**
 SN 1006: PROBING THE SYNCHROTRON ORIGIN OF THE X- RAYS AND
 MEASURING PROPER MOTIONS _ADP98
 01/06/1999 - 12/31/1999 FY99: \$39,632 Total: \$39,632
Prin. Invest.: P WINKLER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAGW 2141 **MIDDLEBURY COLLEGE** **9033**
 NAGW-2141/MIDDLEBURY COLLEGE/CURRENT SHEET FORMATI ON AND
 LOSS OF EQUILIBRIUM
 08/08/1990 - 09/30/1997 FY99: -\$8,557 Total: \$245,920
Prin. Invest.: R WOLFSON
Tech. Officer: HQ/J D BOHLIN, HQ/S KANE
CASE Category: 13 - PHYSICS

NAG 3 1936 **UNIVERSITY OF VERMONT** **9034**
 DECOUPLING THE ROLE OF INERTIA AND GRAVITY ON PART ICLE DESPER-
 SION
 08/05/1996 - 06/30/2000 FY99: \$0 Total: \$7,321
Prin. Invest.: K SQUIRES
Tech. Officer: GRC/T K GLASGOW
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 4138 **UNIVERSITY OF VERMONT** **9035**
 MAPPING NORTHERN METHANE SOURCES AND SINKS IN THE USING
 RADARSAT
 03/17/1997 - 12/31/1999 FY99: \$95,000 Total: \$237,500
Prin. Invest.: D MORRISSEY
Tech. Officer: GSFC/R H THOMAS
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 5 5135 **UNIVERSITY OF VERMONT** **9036**
 EFFECTS OF A SOUNDING ROCKET FLIGHT ON DROSOPHIA- TEST BED
 FOR MOTILITY & METABOLISM EXPERIMENTS
 04/14/1997 - 10/13/1999 FY99: \$0 Total: \$34,947
Prin. Invest.: T KELLER
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 - PHYSICS

VIRGINIA

NASA'S UNIVERSITY PROGRAM

NAG 5 7247 UNIVERSITY OF VERMONT 9037
CORE FORMATION UNDER DYNAMIC CONDITIONS: AN EXPERIMENTAL STUDY
04/28/1998 - 02/28/2000 FY99: \$30,000 Total: \$60,000
Prin. Invest.: T RUSHMER
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 8 1281 UNIVERSITY OF VERMONT 9038
JOVE RESEARCH
01/21/1997 - 08/31/2000 FY99: \$0 Total: \$55,000
Prin. Invest.: G MIRCHANDANI
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 3604 UNIVERSITY OF VERMONT 9039
SELF-GENERATED BENDING MOMENTS IN ROOT GRAVITROPISM
05/26/1993 - 03/31/1999 FY99: -\$3,500 Total: \$41,951
Prin. Invest.: P M LINTILHAC
Tech. Officer: HQ/T W HALSTEAD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 5026 UNIVERSITY OF VERMONT 9040
CHARACTERIZATION OF METHANE SOURCE AND SINK AREAS IN NORTHERN ECOSYSTEMS USING SYNTHETIC APERTURE
04/11/1996 - 09/30/1997 FY99: -\$5 Total: \$129,995
Prin. Invest.: L A MORRISSEY, G P LIVINGSTON
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 5342 UNIVERSITY OF VERMONT 9041
LAND COVER MAPPING IN NORTHERN ECOSYSTEMS USING AIRBORNE EOS/POLDER
08/17/1999 - 04/30/2000 FY99: \$35,000 Total: \$35,000
Prin. Invest.: G P LIVINGSTON, L A MORRISSEY
Tech. Officer: ARC/V C VANDERBILT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 394 UNIVERSITY OF VERMONT 9042
NASA EPSCOR: PREPARATORY GRANT PROPOSAL
05/13/1999 - 07/14/2000 FY99: \$225,000 Total: \$225,000
Prin. Invest.: W LAKIN
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40045 UNIVERSITY OF VERMONT 9043
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
01/24/1997 - 02/28/2000 FY99: \$256,250 Total: \$717,500
Prin. Invest.: W D LAKIN
Tech. Officer: HQ/J DASCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 60000 UNIVERSITY OF VERMONT 9044
MUSCULOSKELETAL COUNTERMEASURES TO SPACEFLIGHT
09/10/1997 - 12/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: T S KELLER/MILLER
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 60002 UNIVERSITY OF VERMONT 9045
BIOMEDICAL RESPONSE OF SOFT TISSUES TO A SIMULATED
09/11/1997 - 07/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: T KELLER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

VIRGINIA

NAG 1 1443 CHRISTOPHER NEWPORT UNIVERSITY 9046
OPTICAL FIBER SPECTROSCOPY
06/16/1992 - 04/30/1999 FY99: -\$16,957 Total: \$225,402
Prin. Invest.: A M BUONCRISTIANI
Tech. Officer: LARC/W H PROSSERI
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1888 CHRISTOPHER NEWPORT UNIVERSITY 9047
THREE-DIMENSIONAL VORTEX MODELING OF AIRFRAME NOISE SOURCES
04/18/1997 - 04/17/1998 FY99: -\$868 Total: \$38,718
Prin. Invest.: J E MARTIN
Tech. Officer: LARC/J C HARDIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1994 CHRISTOPHER NEWPORT UNIVERSITY 9048
TIGER PAU: THERMALLY INDUCED GRADIENT EFFECTS PARAMETER ASSESSMENT UNDERTAKING
01/22/1998 - 01/21/1999 FY99: \$493 Total: \$20,495
Prin. Invest.: J M HEREFORD
Tech. Officer: LARC/R D RHEW, LARC/P A PARKER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 1 2112 CHRISTOPHER NEWPORT UNIVERSITY 9049
TECHNOLOGY DEVELOPMENT, IMPLEMENTATION, AND ASSESSMENT: K-16 PRE-SERVICE, IN-SERVICE, AND DISTANCE
09/16/1998 - 07/31/1999 FY99: \$55,736 Total: \$151,736
Prin. Invest.: W B WILLIAMS, JR, L V HALE
Tech. Officer: LARC/T E PINELLI, LARC/R A HATHAWAY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2171 CHRISTOPHER NEWPORT UNIVERSITY 9050
DESIGNING AN EDUCATIONAL TECHNOLOGY MODEL FOR THE TRANSITION TO A GLOBAL ELECTRONIC VILLAGE
03/25/1999 - 06/15/1999 FY99: \$0 Total: \$0
Prin. Invest.: J M BAILEY
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2210 CHRISTOPHER NEWPORT UNIVERSITY 9051
TRANSFORMING EDUCATIONAL SOFTWARE: IMPLICATIONS FROM MOTIVATIONAL PSYCHOLOGY
07/07/1999 - 05/31/2000 FY99: \$23,321 Total: \$23,321
Prin. Invest.: P DOMINQUZE
Tech. Officer: LARC/D M BUSHNELL
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 1 2219 CHRISTOPHER NEWPORT UNIVERSITY 9052
 TECHNOLOGY DEVELOPMENT IMPLEMENTATION, AND ASSESS- MENT:
 K-16 PRE-SERVICE, IN-SERVICE, AND DISTANCE
 08/20/1999 - 07/31/2002 FY99: \$120,000 Total: \$120,000
Prin. Invest.: W B WILLIAMS
Tech. Officer: LARC/T E PINELLI, LARC/R A HATHAWAY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 6503 CHRISTOPHER NEWPORT UNIVERSITY 9053
 VALIDATION OF MSMT. OF POLLUTION IN THE TROPOSPHER E (MOPITT)
 EXPERIMENT BY GROUND-BASED INFRARED SO
 10/29/1997 - 09/30/2000 FY99: \$10,682 Total: \$251,433
Prin. Invest.: N POUATCHEV
Tech. Officer: GSFC/D STARR
CASE Category: 11 - ASTRONOMY

NAG 8 1292 CHRISTOPHER NEWPORT UNIVERSITY 9054
 NASA/UNIV JOINT VENTURE IN SPACE SCIENCE (JOVE) FIRST YEAR FUND-
 ING
 04/11/1996 - 03/31/2000 FY99: \$0 Total: \$64,148
Prin. Invest.: D C ANYIWO
Tech. Officer: MSFC/D SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 1 178 CHRISTOPHER NEWPORT UNIVERSITY 9055
 SHIELDING FROM SPACE RADIATIONS NLPN 93-313
 04/13/1993 - 01/31/1998 FY99: -\$1 Total: \$399,757
Prin. Invest.: C K CHANG
Tech. Officer: LARC/J L SHINN, LARC/E J CONWAY
CASE Category: 13 - PHYSICS

NCC 1 204 CHRISTOPHER NEWPORT UNIVERSITY 9056
 APPLICATION OF SPECTROSCOPIC METHODS TO STUDY ATMOSPHERIC
 TRACE GAS CONSTITUENTS
 11/23/1994 - 08/31/1999 FY99: \$0 Total: \$359,057
Prin. Invest.: A M BUONCRISTIANI
Tech. Officer: LARC/G W SACHSE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 277 CHRISTOPHER NEWPORT UNIVERSITY 9057
 DEV OF A 3-DIMENSIONAL HEAVY ION, CHARGED PARTICLE BOLTZMANN
 TRANSPORT SOLVER
 02/13/1998 - 01/31/2001 FY99: \$86,157 Total: \$169,001
Prin. Invest.: C K CHANG
Tech. Officer: LARC/R C SINGLETERRY, JR., LARC/J W WILSON
CASE Category: 13 - PHYSICS

NCC 1 318 CHRISTOPHER NEWPORT UNIVERSITY 9058
 AIRCRAFT AND GROUND-BASED SPECTROSCOPIC MEASURE- MENTS OF
 TROPOSPHERIC CO, CO₂, CH₄, N₂O, AND H₂O
 09/18/1998 - 09/30/2000 FY99: \$37,500 Total: \$82,500
Prin. Invest.: N POUATCHER, M BUONCRISTIANI
Tech. Officer: LARC/G W SOCHSE, LARC/D E HINTON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 435 CHRISTOPHER NEWPORT UNIVERSITY 9059
 THE NASA WHY FILES, PROBLEM-BASED LEARNING INTEGRA TING
 BROADCAST VIDEO AND THE INTERNET.
 09/24/1999 - 09/30/2000 FY99: \$86,500 Total: \$86,500
Prin. Invest.: W B WILLIAMS
Tech. Officer: GSFC/N LAL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1783 COLLEGE OF WILLIAM AND MARY 9060
 ACTUATOR PLACEMENT FOR ACTIVE SOUND AND VIBRATION CONTROL
 12/05/1995 - 06/10/1999 FY99: -\$37 Total: \$80,023
Prin. Invest.: R K KINCAID
Tech. Officer: LARC/S L PADULA
CASE Category: 21 - MATHEMATICS

NAG 1 1856 COLLEGE OF WILLIAM AND MARY 9061
 FRICTION DRAG MEASUREMENTS FOR JET ENGINE NOZZLE LINERS
 07/24/1996 - 06/30/1998 FY99: \$0 Total: \$74,691
Prin. Invest.: D MANOS, D DETURRIS
Tech. Officer: LARC/J M SEINER, LARC/M K PONTON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2077 COLLEGE OF WILLIAM AND MARY 9062
 BELL-CURVE BASED EVOLUTIONARY STRATEGIES FOR STRUCTURAL
 OPTIMIZATION
 06/08/1998 - 07/31/2000 FY99: \$44,450 Total: \$54,450
Prin. Invest.: R K KINCAID
Tech. Officer: LARC/J SOBIESKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2117 COLLEGE OF WILLIAM AND MARY 9063
 CYBER TECHNOLOGY FOR MATERIALS AND STRUCTURES IN AERO-
 NAUTICS AND AEROSPACE
 11/04/1998 - 09/30/1999 FY99: \$149,059 Total: \$149,059
Prin. Invest.: D M MANOS, R B PIPES
Tech. Officer: LARC/T L ST. CLAIR, LARC/J HINKLEY
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 2168 COLLEGE OF WILLIAM AND MARY 9064
 AN ADVANCED HIERARCHICAL HYBRID ENVIRONMENT FOR RELIABILITY
 AND PERFORMANCE MODELING
 03/24/1999 - 02/28/2002 FY99: \$80,000 Total: \$80,000
Prin. Invest.: G CIARDO
Tech. Officer: LARC/P W GOODE
CASE Category: 22 - COMPUTER SCIENCE

NAS 1 98039 COLLEGE OF WILLIAM AND MARY 9065
 SAGE SCIENCE INVESTIGATION
 06/30/1998 - 06/29/2000 FY99: \$35,098 Total: \$137,437
Prin. Invest.: D C BENNER
Tech. Officer: LARC/W P CHU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 1 43 COLLEGE OF WILLIAM AND MARY 9066
 HALOE SCIENCE INVESTIGATION
 07/16/1980 - 05/31/1998 FY99: -\$6,776 Total: \$1,414,487
Prin. Invest.: D C BENNER
Tech. Officer: LARC/J PARK, LARC/J M RUSSELL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 80 COLLEGE OF WILLIAM AND MARY 9067
 HIGH RESOLUTION SPECTROSCOPY TO SUPPORT ATMOSPHERIC MEASUREMENTS
 07/18/1983 - 03/31/2000 FY99: \$115,000 Total: \$1,433,634
Prin. Invest.: D C BENNER, M D VENKATARAMAN
Tech. Officer: LARC/M A SMITH, LARC/C P RINSLAND
CASE Category: 13 - PHYSICS

NCC 1 239 COLLEGE OF WILLIAM AND MARY 9068
 THE DEVELOPMENT OF MATERIALS FOR STRUCTURES AND RADIATION SHIELDING IN SPACE
 07/17/1996 - 07/31/2000 FY99: \$47,599 Total: \$171,358
Prin. Invest.: R L KIEFER, R A ORWOLL
Tech. Officer: LARC/S A THIBEAULT
CASE Category: 12 - CHEMISTRY

NCC 1 258 COLLEGE OF WILLIAM AND MARY 9069
 ROBUST ADAPTIVE DATA ENCODING AND RESTORATION
 05/22/1997 - 02/29/2000 FY99: \$146,236 Total: \$310,479
Prin. Invest.: S K PARK, Z RAHMAN
Tech. Officer: LARC/F O HUCK, LARC/D J JOBSON
CASE Category: 22 - COMPUTER SCIENCE

NCC 1 262 COLLEGE OF WILLIAM AND MARY 9070
 FLIGHT VALIDATION OF ATOMIC OXYGEN RESISTANT POLYMER
 07/21/1997 - 05/31/1999 FY99: \$0 Total: \$25,423
Prin. Invest.: R L KIEFER, R A ORWOLL
Tech. Officer: LARC/S A THIBEAULT
CASE Category: 12 - CHEMISTRY

NCC 1 272 COLLEGE OF WILLIAM AND MARY 9071
 FABRICATION OF HIGHLY REFLECTIVE AND ELECTRICALLY CONDUCTIVE SURFACE METALLIZED POLYMERIC FILMS FOR
 01/06/1998 - 07/05/1999 FY99: \$1,648 Total: \$19,820
Prin. Invest.: R A ORWOLL
Tech. Officer: LARC/A K ST. CLAIR
CASE Category: 12 - CHEMISTRY

NCC 1 327 COLLEGE OF WILLIAM AND MARY 9072
 PREDICTION FOR RADIATION SHIELDING MATERIALS
 01/27/1999 - 12/18/2001 FY99: \$96,414 Total: \$96,414
Prin. Invest.: R L KIEFER
Tech. Officer: LARC/S A THIBEAULT
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 1 356 COLLEGE OF WILLIAM AND MARY 9073
 CYBER SIMULATION FOR COMPOSITE MAT'L S & STRUCTURES IN AERONAUTICS AND AEROSPACE
 09/28/1999 - 09/30/2002 FY99: \$25,000 Total: \$25,000
Prin. Invest.: D M MANOS, R B PIPES
Tech. Officer: LARC/J H STARNES, JR.
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52127 COLLEGE OF WILLIAM AND MARY 9074
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/22/1996 - 12/31/1999 FY99: \$12,000 Total: \$66,000
Prin. Invest.: P HINDERS
Tech. Officer: LARC/E I MADARAS
CASE Category: 13 - PHYSICS

NGT 1 52165 COLLEGE OF WILLIAM AND MARY 9075
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) TRANSFER FROM NASA HQ - NGT-332-251
 05/29/1997 - 06/30/1999 FY99: \$9,000 Total: \$30,201
Prin. Invest.: S PORK
Tech. Officer: LARC/J R SCHIESS
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52180 COLLEGE OF WILLIAM AND MARY 9076
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 01/12/1998 - 12/31/1999 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J S BOGHOSIAN
Tech. Officer: LARC/P H JOHNSTON
CASE Category: 13 - PHYSICS

NGT 1 52195 COLLEGE OF WILLIAM AND MARY 9077
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) YEAR ONE
 06/26/1998 - 06/30/2000 FY99: \$22,000 Total: \$32,000
Prin. Invest.: A S MINER, G CIARDO
Tech. Officer: LARC/P W GOODE
CASE Category: 22 - COMPUTER SCIENCE

NGT 1 52200 COLLEGE OF WILLIAM AND MARY 9078
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 07/21/1998 - 08/31/2000 FY99: \$22,000 Total: \$32,000
Prin. Invest.: R A ORWOLL
Tech. Officer: LARC/N J JOHNSTON, LARC/J A HINKLEY
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 1 52203 COLLEGE OF WILLIAM AND MARY 9079
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/04/1998 - 06/23/1999 FY99: -\$16,156 Total: \$5,844
Prin. Invest.: M HINDERS
Tech. Officer: LARC/T L ST. CLAIR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 1 52204 COLLEGE OF WILLIAM AND MARY 9080
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/04/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: M HINDERS
Tech. Officer: LARC/T E PINELLI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1943 EMORY & HENRY COLLEGE 9081
 HPLC CHARACTERIZATION OF PHENOL FORMALDEHYDE RESOLE RESIN USED IN FAB. OF SHUTTLE BOOSTER NOZ
 06/05/1997 - 06/04/1999 FY99: \$0 Total: \$8,143
Prin. Invest.: P R YOUNG
Tech. Officer: LARC/T L ST. CLAIR
CASE Category: 12 - CHEMISTRY

NAG10 178 ESTRN VA MED SCHL-ESTRN VA MED AUTHORITY 9082
 ROLE OF THYROXINE IN SPACE-DEVELOPED JELLYFISH
 09/11/1995 - 09/30/1998 FY99: -\$690 Total: \$216,091
Prin. Invest.: D SPANGENBERG
Tech. Officer: KSC/W M KNOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 1 310 **ESTRN VA MED SCHL-ESTRN VA MED AUTHORITY** **9083**
 STRESS COUNTER-RESPONSE TRAINING VIA PHYSIOLOGICAL SELF REG-
 ULATIONS DURING FLIGHT SIMULATION
 07/29/1998 - 12/31/1999 FY99: \$40,000 Total: \$60,762
Prin. Invest.: O S PALSSON
Tech. Officer: LARC/A T POPE, LARC/P C SCHUTTE
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 1 1929 **GEORGE MASON UNIVERSITY** **9084**
 NETWORK COMPUTING IN ENGINEERING DESIGN
 05/29/1997 - 06/30/1999 FY99: \$0 Total: \$129,575
Prin. Invest.: T ARCISZEWSKI
Tech. Officer: LARC/J J REHDER
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1289 **GEORGE MASON UNIVERSITY** **9085**
 ABATEMENT OF AUTOMATION ERRORS BY TRAINING BASED ON COGNITIVE MODELS
 02/01/1999 - 12/31/1999 FY99: \$96,752 Total: \$96,752
Prin. Invest.: D B DAVIS, P A IKOMI, R W HOLT
Tech. Officer: ARC/S M CASNER
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 5 2652 **GEORGE MASON UNIVERSITY** **9086**
 HIGH PERFORMANCE COMPUTING RESEARCH
 07/06/1994 - 10/14/1997 FY99: -\$25,140 Total: \$1,134,516
Prin. Invest.: R LOHNER
Tech. Officer: GSFC/J R FISCHER, GSFC/S T ZALESK
CASE Category: 13 - PHYSICS

NAG 5 3086 **GEORGE MASON UNIVERSITY** **9087**
 VIRTUAL DOMAIN APPLICATION USAGE OF EARTH OBSERVING DATA AND
 ECS PROTOTYPING
 10/05/1995 - 12/31/1998 FY99: \$0 Total: \$337,090
Prin. Invest.: M KAFATOS
Tech. Officer: GSFC/H RAMPRIYAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3240 **GEORGE MASON UNIVERSITY** **9088**
 MONITORING HARD-TAILS OF LMC X-3 AND LMC X-1 AND HARVESTING
 X-RAY BURSTS FROM THE GALACTIC CENTER..
 05/29/1996 - 11/30/1997 FY99: -\$48 Total: \$42,699
Prin. Invest.: L TITARCHUK
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4140 **GEORGE MASON UNIVERSITY** **9089**
 MULTISENSOR MAPPING OF AFRICAN SETTLEMENTS AND REF
 04/12/1997 - 02/29/2000 FY99: \$32,944 Total: \$114,837
Prin. Invest.: B HAACK
Tech. Officer: GSFC/R H THOMAS
CASE Category: 76 - SOCIOLOGY

NAG 5 4727 **GEORGE MASON UNIVERSITY** **9090**
 SIMULATION STUDIES OF THE POLAR AURORA, PLASMA CON SYSTEMS
 USING ISTP-GGS DATA
 06/27/1997 - 06/30/2000 FY99: \$0 Total: \$160,000
Prin. Invest.: D A FEDDER
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4868 **GEORGE MASON UNIVERSITY** **9091**
 SOLVING COMBINATIONAL PROBLEMS ON LOOSELY COUPLED
 06/26/1997 - 10/31/1999 FY99: \$62,778 Total: \$125,511
Prin. Invest.: P Y WANG
Tech. Officer: GSFC/J DORBANDL
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 7065 **GEORGE MASON UNIVERSITY** **9092**
 INTERPLANETARY DUST DISTRIBUTION AND THE DIRBE DATA
 03/11/1998 - 03/14/2000 FY99: \$73,500 Total: \$123,700
Prin. Invest.: L OZNEROY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7317 **GEORGE MASON UNIVERSITY** **9093**
 A THEORETICAL AND OBSERVATIONAL STUDY OF EMISSION FROM BLACK
 HOLES AT X-RAYS AND GAMMA RAYS
 04/30/1998 - 06/30/1999 FY99: \$9,001 Total: \$44,001
Prin. Invest.: L TITARCHUK
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7775 **GEORGE MASON UNIVERSITY** **9094**
 EFFECTS OF AEROSOLS ON CLOUDS IN THE BIOMASS BURNING
 01/06/1999 - 04/14/2000 FY99: \$58,975 Total: \$58,975
Prin. Invest.: J RAMAPRASAD
Tech. Officer: GSFC/L REMER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8415 **GEORGE MASON UNIVERSITY** **9095**
 RECONFIGURABLE ARCHITECTURES FOR ONBOARD IMAGE PROCESSING
 03/25/1999 - 03/31/2000 FY99: \$40,000 Total: \$40,000
Prin. Invest.: T EL-GHAZAWI
Tech. Officer: GSFC/J LEMOIGNE
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 8607 **GEORGE MASON UNIVERSITY** **9096**
 A PROTOTYPE DATA PYRAMID FOR DATA MINING AND KNOWLEDGE DIS-
 COVERY
 06/10/1999 - 06/14/2000 FY99: \$75,000 Total: \$75,000
Prin. Invest.: R YANG
Tech. Officer: GSFC/K MOE
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 143 **GEORGE MASON UNIVERSITY** **9097**
 EARTH SYSTEM SCIENCE DATA SUPPORT
 07/15/1996 - 06/14/2000 FY99: \$2,021,044 Total: \$3,901,357
Prin. Invest.: M KAFATOS
Tech. Officer: GSFC/S KEMPLER
CASE Category: 11 - ASTRONOMY

NCC 5 245 **GEORGE MASON UNIVERSITY** **9098**
 DEVELOPMENT OF POSEIDON OCEAN MODEL FOR NSIPP
 10/08/1997 - 10/14/2000 FY99: \$63,210 Total: \$207,650
Prin. Invest.: P SCHOPF
Tech. Officer: GSFC/M RIENECKER
CASE Category: 33 - OCEANOGRAPHY

NCC 5 267 **GEORGE MASON UNIVERSITY** **9099**
 TO SUPPORT THE FLAT-SAT VISION PROJECT
 01/28/1998 - 02/14/2001 FY99: \$0 Total: \$80,000
Prin. Invest.: H GOMAA
Tech. Officer: GSFC/T AMES
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 306 **GEORGE MASON UNIVERSITY** **9100**
 SEASONAL & INTERANNUAL EARTH SCIENCE INFORMATION PARTNER
 (SIESIP)
 04/09/1998 - 02/28/2001 FY99: \$900,000 Total: \$1,400,000
Prin. Invest.: M KAFATOS
Tech. Officer: GSFC/M MAIDEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 360 **GEORGE MASON UNIVERSITY** **9101**
 CONTINUING CAREER PROGRAM (CCP)
 08/26/1998 - 08/31/2001 FY99: \$0 Total: \$386,008
Prin. Invest.: R R STOUGH
Tech. Officer: GSFC/A E TAYLOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 30330 **GEORGE MASON UNIVERSITY** **9102**
 GLOBAL CHANGE FELLOWSHIP AWARD
 09/12/1995 - 08/31/1998 FY99: -\$1,583 Total: \$42,417
Prin. Invest.: M KUFATOS
Tech. Officer: HQ/A J TUYAHOV, HQ/G ASRAR
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 5 30101 **GEORGE MASON UNIVERSITY** **9103**
 THIRD YEAR FUNDING: AN ARCHITECTURAL STUDY OF EOS INTERFACE/N.
 NADA
 09/15/1997 - 12/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: D RINE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1185 **HAMPTON UNIVERSITY** **9104**
 THE AMERICAN INDIAN EDUCATION OPPORTUNITIES PROGRAM
 09/13/1990 - 09/30/1998 FY99: \$0 Total: \$630,591
Prin. Invest.: P F MOLIN, D D VENABLE
Tech. Officer: LARC/S E MASSENBERG
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1636 **HAMPTON UNIVERSITY** **9105**
 INVESTIGATION OF NOX REMOVAL FROM SMALL ENGINE EXHAUST
 08/03/1994 - 07/31/1999 FY99: \$1 Total: \$221,256
Prin. Invest.: J F AKYURTLU
Tech. Officer: LARC/G B NORTHAM
CASE Category: 43 - CHEMICAL ENGR

NAG 1 1742 **HAMPTON UNIVERSITY** **9106**
 ELECTORRHEOLOGICAL FLUIDS - AEROSPACE APPLICATIONS NLPN
 95-104
 07/31/1995 - 01/31/1999 FY99: \$1 Total: \$308,315
Prin. Invest.: A C SMITH, D S PARMAR
Tech. Officer: LARC/G T KIMBERLY, LARC/H K HOLMES
CASE Category: 13 - PHYSICS

NAG 1 1765 **HAMPTON UNIVERSITY** **9107**
 DEVELOPMENT OF LASER MATERIALS FOR LIDAR SYSTEMS
 10/20/1995 - 10/19/1997 FY99: -\$1 Total: \$239,591
Prin. Invest.: D A TEMPLE, S C MATHAR, D LYONS
Tech. Officer: LARC/J C BARNES, LARC/N P BARNES
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 1834 **HAMPTON UNIVERSITY** **9108**
 HAMPTON UNIVERSITY AEROSCIENCE CENTER
 05/03/1996 - 05/31/2000 FY99: \$0 Total: \$1,000,000
Prin. Invest.: C REAVES
Tech. Officer: LARC/S E MASSENBERG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1835 **HAMPTON UNIVERSITY** **9109**
 START UP RESEARCH EFFORT IN FLUID MECHANICS MY 1/3
 05/02/1996 - 12/31/1999 FY99: \$0 Total: \$225,000
Prin. Invest.: M H MORGAN, A G MIAMRE
Tech. Officer: LARC/J W POSEY, LARC/J C HARDIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1902 **HAMPTON UNIVERSITY** **9110**
 LANGLEY AEROSCIENCE RESEARCH SUMMER SCHOLARS PROGRAM
 02/14/1997 - 05/30/1998 FY99: -\$12,086 Total: \$678,014
Prin. Invest.: C W LOWE
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1936 **HAMPTON UNIVERSITY** **9111**
 MIXING, NOISE, AND THRUST BENEFITS USING CORRUGATED DESIGNS
 05/27/1997 - 05/31/2000 FY99: \$60,000 Total: \$360,000
Prin. Invest.: M H MORGAN, M M GILINSKY
Tech. Officer: LARC/J W POSEY, LARC/M K PONTON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1941 **HAMPTON UNIVERSITY** **9112**
 CHARACTERIZATION OF MOLECULAR INTERACTIONS AT METAL/POLYMER
 COMPOSITE SURFACES AND INTERPHASES
 05/30/1997 - 05/31/2000 FY99: \$100,000 Total: \$250,000
Prin. Invest.: J C WILLIAMS
Tech. Officer: LARC/T L ST. CLAIR, LARC/S H LOWTHER
CASE Category: 12 - CHEMISTRY

NAG 1 1947 **HAMPTON UNIVERSITY** **9113**
 CONCEPTS FOR ATMOSPHERIC SCIENCE EDUCATION (CASE)
 06/17/1997 - 06/30/2000 FY99: \$105,907 Total: \$361,950
Prin. Invest.: M P MCCORMICK, J M RUSSELL, III
Tech. Officer: LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1949 **HAMPTON UNIVERSITY** **9114**
 DEVELOPMENT OF A PORTABLE, GROUND BASED OZONE LIDAR
 INSTRUMENT FOR TROPOSPHERIC OZONE
 06/20/1997 - 06/30/1999 FY99: \$90,000 Total: \$360,000
Prin. Invest.: T H CHYBA, T ZENKER
Tech. Officer: LARC/J FISHMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1963 **HAMPTON UNIVERSITY** **9115**
 INVESTIGATIONS OF TROPICAL ATMOSPHERIC RADIATIVE ENERGY BAL-
 ANCE USING CERS AND TRMM DATA
 09/03/1997 - 09/30/2000 FY99: \$383,785 Total: \$722,152
Prin. Invest.: B LIN
Tech. Officer: LARC/B A WIENCKI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2017 **HAMPTON UNIVERSITY** **9116**
 1998 LANGLEY AEROSPACE RESEARCH SUMMER SCHOLARS PROGRAM
 (LARSS)
 03/03/1998 - 03/02/1999 FY99: \$119,106 Total: \$693,148
Prin. Invest.: C W LOWE
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2135 **HAMPTON UNIVERSITY** **9117**
 STUDY OF CONTRAILS AND ATMOSPHERIC RADIATION MEAS (ARM) DATA
 PROJECT DEVELOPMENT
 01/19/1999 - 01/18/2002 FY99: \$76,730 Total: \$76,730
Prin. Invest.: M P MCCORMICK, J M RUSSELL, 111
Tech. Officer: LARC/P MINNIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2159 **HAMPTON UNIVERSITY** **9118**
 1999 LANGLEY AEROSCIENCE RESEARCH SUMMER SCHOLARS PROGRAM
 (LARSS)
 03/15/1999 - 03/02/2000 FY99: \$757,511 Total: \$757,511
Prin. Invest.: C LOWE
Tech. Officer: LARC/R A HATHAWAY, LARC/E J PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2170 **HAMPTON UNIVERSITY** **9119**
 DEVELOPMENT AND COMPARISON OF GLOBAL AEROSOL, WATER VAPOR,
 AND OZONE CLIMATOLOGIES USING SAGE II
 03/25/1999 - 02/28/2002 FY99: \$75,000 Total: \$75,000
Prin. Invest.: M P MCCORMICK
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2206 **HAMPTON UNIVERSITY** **9120**
 TOP-OF-ATMOSPHERE CLEAR-SKY BROADBAND RADIATIVE FLUX AND
 DIRECT AEROSOL RADIATIVE FORCING FROM
 06/21/1999 - 06/30/2002 FY99: \$26,100 Total: \$26,100
Prin. Invest.: N G LOEB, B LIN, J HU
Tech. Officer: LARC/V E DELNORE, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2207 **HAMPTON UNIVERSITY** **9121**
 OPENING NATIVE AMERICAN CAREER PATHS IN MATHEMATIC SCIENCE,
 AND TECHNOLOGY
 07/01/1999 - 06/30/2000 FY99: \$53,000 Total: \$53,000
Prin. Invest.: C LOWE
Tech. Officer: LARC/R HATHAWAY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2223 **HAMPTON UNIVERSITY** **9122**
 EVALUATION OF THE EFFECT OF WATER VAPOR ON THE PERFORMANCE
 OF NASA'S NMRO CATALYST FOR CARBON
 08/31/1999 - 07/31/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: A AKYURTLU
Tech. Officer: LARC/D R SCHRYER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2224 **HAMPTON UNIVERSITY** **9123**
 STUDENT FIELD TESTING OF THE HAMPTON UNIVERSITY COMPACT
 OZONE LIDAR SYSTEM CERTIFICATION OF
 08/24/1999 - 07/31/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: T H CHYBA
Tech. Officer: LARC/J FISHMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1331 **HAMPTON UNIVERSITY** **9124**
 APPLIED CFD RESEARCH & TRAINING
 06/21/1999 - 06/14/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: H HU
Tech. Officer: ARC/R C STRAWN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1720 **HAMPTON UNIVERSITY** **9125**
 DISTRIBUTED BRAGG REGION SENSORS WITH AEROSPACE AP Plica-
 TIONS
 02/28/1995 - 02/27/1998 FY99: -\$2,714 Total: \$222,286
Prin. Invest.: R LYONS
Tech. Officer: GRC/G ADAMOVSKY
CASE Category: 13 - PHYSICS

NAG 3 1792 **HAMPTON UNIVERSITY** **9126**
 PARALLELIZATION OF ROCKET ENGINE SIMULATOR SOFTWARE
 10/19/1995 - 10/18/1999 FY99: \$0 Total: \$293,050
Prin. Invest.: D CEZZAR
Tech. Officer: GRC/D N NOGA, GRC/K J DAVIDIAN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2034 **HAMPTON UNIVERSITY** **9127**
 HIGH TEMPERATURE FIBER OPTICS SENSOR SYSTEM FOR PLUME
 IMPINGEMENT STUDIES
 04/09/1997 - 11/22/1999 FY99: \$68,858 Total: \$150,859
Prin. Invest.: D R LYONS
Tech. Officer: GRC/S R BULLOCK
CASE Category: 13 - PHYSICS

NAG 3 2059 **HAMPTON UNIVERSITY** **9128**
 OPTICAL STRAIN GAUGES FOR PLUME IMPINGEMENT STUDIES
 07/10/1997 - 06/24/1999 FY99: \$50,000 Total: \$398,128
Prin. Invest.: D R LYONS
Tech. Officer: GRC/E J PENCIL
CASE Category: 13 - PHYSICS

NAG 3 2189 **HAMPTON UNIVERSITY** **9129**
 OPTICAL ELECTRONIC BRAGG REFLECTION SENSOR SYSTEM WITH
 HYDRODYNAMIC FLOW APPLICATIONS
 08/07/1998 - 05/30/2002 FY99: \$150,722 Total: \$245,001
Prin. Invest.: D R LYONS
Tech. Officer: GRC/D GRIFFIN
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2249 **HAMPTON UNIVERSITY** **9130**
 ADVANCED METHODS FOR AIRCRAFT ENGINE THRUST AND NOISE BENEFITS. NOZZLE-INLET FLOW ANALYSIS
 04/01/1999 - 01/26/2002 FY99: \$100,000 Total: \$100,000
 Prin. Invest.: M H MORGAN
 Tech. Officer: GRC/I BLANKSON
 CASE Category: 49 - ENGINEERING, OTHER

NAG 4 147 **HAMPTON UNIVERSITY** **9131**
 EVALUATION OF STRUCTURAL ADHESIVE BONDS USING FIBER OPTIC METHODS
 02/26/1998 - 02/27/1999 FY99: \$0 Total: \$50,000
 Prin. Invest.: A SMITH
 Tech. Officer: DFRC/E COX, DFRC/K K GUPTA
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 6296 **HAMPTON UNIVERSITY** **9132**
 HAMPTON UNIVERSITY - OPTICAL RADIATION IN ATMOSPHERE
 09/19/1997 - 08/31/1999 FY99: \$74,987 Total: \$149,975
 Prin. Invest.: D A TEMPLE
 Tech. Officer: GSFC/N KHAZENIE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6938 **HAMPTON UNIVERSITY** **9133**
 MATHEMATICS, SCIENCE, ENGINEERING AND TECHNOLOGY PROGRAM
 02/06/1998 - 01/31/1999 FY99: \$0 Total: \$100,000
 Prin. Invest.: M MORGAN
 Tech. Officer: GSFC/M STOUTSENBERGER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7001 **HAMPTON UNIVERSITY** **9134**
 STUDIES OF THE CLIMATOLOGY, LONG-TERM TRENDS, AND QUASI-BIENNIAL OSCILLATION OF CHEMICAL TRACERS IN
 04/07/1998 - 03/31/2000 FY99: \$50,809 Total: \$102,396
 Prin. Invest.: D M RUSSELL, 111 Prin. Invest.: NONE
 Tech. Officer: GSFC/C JACKMAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8648 **HAMPTON UNIVERSITY** **9135**
 "PROPOSAL FOR MEMBERSHIP TO THE AEROSOL RADIATIVE FORCING SCIENCE TEAM"
 08/16/1999 - 01/31/2000 FY99: \$14,910 Total: \$14,910
 Prin. Invest.: M MCCORMICK
 Tech. Officer: GSFC/M I MISHCHENKO
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1340 **HAMPTON UNIVERSITY** **9136**
 FOR RESEARCH "FIBER OPTIC SENSOR COMPONENT AND SYS FOR SMART MATERIALS & STRUCTURES UNDER THE DIR..."
 04/17/1997 - 04/16/1999 FY99: \$0 Total: \$200,000
 Prin. Invest.: D R LYONS
 Tech. Officer: MSFC/S NASH-STEVENSON, MSFC/A C BEAN
 CASE Category: 49 - ENGINEERING, OTHER

NAGW 5171 **HAMPTON UNIVERSITY** **9137**
 PACE/MSET PROGRAM
 10/25/1996 - 12/31/1997 FY99: -\$13,485 Total: \$86,515
 Prin. Invest.: A OLADIPUPO
 Tech. Officer: HQ/B WHITE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 44 **HAMPTON UNIVERSITY** **9138**
 INFORMATION CONTENT IMPROVEMENT BY HYPER SPECTRAL IMAGER
 08/01/1995 - 01/09/1999 FY99: \$0 Total: \$287,756
 Prin. Invest.: B A ADESENYA
 Tech. Officer: SSC/A JOYCE
 CASE Category: 33 - OCEANOGRAPHY

NAS 1 19935 **HAMPTON UNIVERSITY** **9139**
 RESEARCH IN AIRWAY SCI, ARCH, & PHYS
 01/29/1993 - 01/28/1999 FY99: \$0 Total: \$3,686,275
 Prin. Invest.: N
 Tech. Officer: LARC/R L YANG, LARC/E J PRIOR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 1 20444 **HAMPTON UNIVERSITY** **9140**
 EDUCATIONAL OUTREACH FOR NASA SCIENCES AND APPLICATIONS
 12/19/1994 - 12/31/1999 FY99: \$766,000 Total: \$3,852,396
 Prin. Invest.: W TINSLEY
 Tech. Officer: LARC/L B GARRETT
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 1 97042 **HAMPTON UNIVERSITY** **9141**
 PRINCIPAL INVESTIGATOR SERVICES TO SUPPORT SAGE II AND III, SABER, HALOE, LITE AND LIDAR PROGRAMS.
 09/29/1997 - 09/30/2002 FY99: \$343,992 Total: \$662,425
 Prin. Invest.: P MCCORMICK
 Tech. Officer: LARC/R L DUNCAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 214 **HAMPTON UNIVERSITY** **9142**
 INTERPRETATION OF LIDAR AND SATELLITE DATA SETS USING A GLOBAL PHOTOCHEMICAL MODEL
 06/29/1995 - 06/30/1998 FY99: \$0 Total: \$225,073
 Prin. Invest.: T ZENKER
 Tech. Officer: LARC/J FISHMAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 215 **HAMPTON UNIVERSITY** **9143**
 LASER RESEARCH FOR TROPOSPHERIC WATER VAPOR MEASUREMENTS
 08/15/1995 - 08/14/1998 FY99: \$0 Total: \$83,093
 Prin. Invest.: T H CHYBA
 Tech. Officer: LARC/E J CONWAY, LARC/N S HIGDON
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 231 **HAMPTON UNIVERSITY** **9144**
 ADVANCED ELECTROMAGNETIC INTERFERENCE AND RADIATION RESEARCH
 06/13/1996 - 12/31/1999 FY99: \$85,000 Total: \$341,054
 Prin. Invest.: A O OLADIPUPO, C J REDDY
 Tech. Officer: LARC/F D BECK, LARC/C R COCKRELL
 CASE Category: 45 - ELECTRICAL ENGR

NCC 1 242 **HAMPTON UNIVERSITY** **9145**
 RADIATION TRANSPORT AND SHIELDING FOR SPACE EXPLORATION AND HIGH-SPEED FLIGHT TRANSPORTATION
 08/19/1996 - 12/31/1998 FY99: \$0 Total: \$226,015
 Prin. Invest.: K M MAUNG
 Tech. Officer: LARC/R C SINGLETERRY, LARC/J W WILSON
 CASE Category: 13 - PHYSICS

NCC 1 251 **HAMPTON UNIVERSITY** **9146**
 RESEARCH CENTER FOR OPTICAL PHYSICS MY 1/5
 03/18/1997 - 12/31/1999 FY99: \$1,000,000 Total: \$3,000,000
Prin. Invest.: D A TEMPLE
Tech. Officer: LARC/R HATHAWAY
CASE Category: 13 - PHYSICS

NCC 1 319 **HAMPTON UNIVERSITY** **9147**
 IN-SITU OZONE (DC-8 & P-3B A/C)& FINE AEROSOL MEAS (DC-8 A/C) SUP-
 PORT GLOBAL TROPOSPHERIC EXPERIMENT
 09/09/1998 - 12/31/1999 FY99: \$86,392 Total: \$108,789
Prin. Invest.: M OWENS
Tech. Officer: LARC/J L RAPER, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 321 **HAMPTON UNIVERSITY** **9148**
 INTERPRETATION OF LIDAR AND SATELLITE DATA SETS USING A GLOBAL
 PHOTOCHEMICAL MODEL (OLD NCC-1-214)
 10/16/1998 - 08/15/1999 FY99: \$22,625 Total: \$22,625
Prin. Invest.: T J ZENKER, T H CHYBA
Tech. Officer: LARC/J FISHMAN, LARC/G W SACHSE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 348 **HAMPTON UNIVERSITY** **9149**
 CENTER FOR LIDAR AND ATMOSPHERIC SCIENCES STUDENTS
 06/29/1998 - 06/30/2003 FY99: \$499,556 Total: \$999,111
Prin. Invest.: D A TEMPLE
Tech. Officer: HQ/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 1 52148 **HAMPTON UNIVERSITY** **9150**
 GRADUATE STUDENT RESEARCH PROGRAM (GSRP)
 07/26/1996 - 05/31/1998 FY99: -\$3,000 Total: \$19,001
Prin. Invest.: L J MORELL, C S GAYLE
Tech. Officer: LARC/J W WILSON
CASE Category: 13 - PHYSICS

NGT 1 52181 **HAMPTON UNIVERSITY** **9151**
 1998 NASA ASEE SUMMER FACULTY RESEARCH PROGRAM
 03/03/1998 - 12/31/1999 FY99: \$0 Total: \$573,000
Prin. Invest.: W P MARABLE
Tech. Officer: LARC/R HATHAWAY, LARC/E PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 1 52207 **HAMPTON UNIVERSITY** **9152**
 AMERICAN INDIAN EDUCATIONAL OPPORTUNITITE PROGRAM
 03/09/1999 - 12/31/1999 FY99: \$109,000 Total: \$109,000
Prin. Invest.: P F MOLINA
Tech. Officer: LARC/R A HATHAWAY, LARC/E PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 3 52354 **HAMPTON UNIVERSITY** **9153**
 UV INDUCED DENSIFICATION AND ABLATION DURING THE FORMATION OF
 BRAGG GRATINGS IN GE-DOPED SiO2 PREFO
 06/25/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: D R LYONS
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 13 - PHYSICS

NAG 1 1802 **JAMES MADISON UNIVERSITY** **9154**
 LARGE EDDY SIMULATION OF A SUBSONIC AXISYMMETRIC JET
 02/01/1996 - 10/04/1997 FY99: -\$1,517 Total: \$50,264
Prin. Invest.: C D PRUETT
Tech. Officer: LARC/K R MEADOWS
CASE Category: 21 - MATHEMATICS

NAG 1 1910 **JAMES MADISON UNIVERSITY** **9155**
 THERMAL STRUCTURE AND MATERIALS TESTING LABORATORY (T-SAMTL)
 03/18/1997 - 03/31/1998 FY99: \$0 Total: \$99,642
Prin. Invest.: A A TEATE
Tech. Officer: LARC/A TEATE
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 2033 **JAMES MADISON UNIVERSITY** **9156**
 LARGE-EDDY SIMULATION FOR AEROACOUSTICS APPLICATIONS
 03/17/1998 - 10/05/1999 FY99: \$0 Total: \$26,360
Prin. Invest.: C D PRUETT, J S SOCHACKI
Tech. Officer: LARC/M H CARPENTER
CASE Category: 21 - MATHEMATICS

NAG 1 2155 **JAMES MADISON UNIVERSITY** **9157**
 CHAOS AND THERMAL SCIENCES LABORATORY (CATS LAB) MY 1/3
 03/05/1999 - 12/31/2001 FY99: \$89,892 Total: \$89,892
Prin. Invest.: A A TEATE
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2186 **JAMES MADISON UNIVERSITY** **9158**
 INFRARED DEVELOPMENT AND TESTING LABORATORY WITH DEVELOP-
 MENT OF ATMOSPHERIC CO IMAGING INSTRUMENT
 04/29/1999 - 02/28/2002 FY99: \$50,000 Total: \$50,000
Prin. Invest.: J J MILES
Tech. Officer: LARC/A D LITTLE
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6166 **JAMES MADISON UNIVERSITY** **9159**
 COLLEGE OF INTEGRATED SCIENCE & TECHNOLOGY (CISAT) CONDUCT
 PRE-SERVICE TEACHER ENHANCEMENT WORKSHOP
 08/01/1997 - 07/31/2000 FY99: \$20,000 Total: \$60,000
Prin. Invest.: J BARNES
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 1 267 **JAMES MADISON UNIVERSITY** **9160**
 CHARACTERIZATION OF INFRARED DIODE LASER BEAMS AND
 ATMOSPHERIC CO IMAGING INSTRUMENT
 11/19/1997 - 10/15/1998 FY99: -\$600 Total: \$34,000
Prin. Invest.: J J MILES
Tech. Officer: LARC/G W SACHSE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1836 **LONGWOOD COLLEGE** **9161**
 DEV OF IMPROVED ANALYTICAL METHODS FOR THE ANALYSIS OF BRIDG-
 MAN GROWN SEMICONDUCTOR
 05/20/1996 - 08/19/1998 FY99: \$0 Total: \$85,139
Prin. Invest.: P BARBER
Tech. Officer: LARC/A L FRIPP
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 1 1432 NORFOLK STATE UNIVERSITY 9162
 DEVELOPMENT OF LABORATORY EXPERIMENTS FOR ENGINEERING
 MATERIALS, SCIENCE, AND TECHNOLOGY
 04/23/1992 - 10/31/1998 FY99: \$0 Total: \$164,496
Prin. Invest.: J A JACOBS
Tech. Officer: LARC/J E GARDNER, LARC/R L YANG
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 1453 NORFOLK STATE UNIVERSITY 9163
 THE GROWTH, SYNTHESIS, AND SPECTROSCOPIC CHARACTERIZATION OF
 MATERIALS - NLPN 92-207R
 09/11/1992 - 09/30/1998 FY99: \$0 Total: \$1,284,976
Prin. Invest.: L MATTIX, H R RIES
Tech. Officer: LARC/P R YOUNG, LARC/N BARNES
CASE Category: 12 - CHEMISTRY

NAG 1 1705 NORFOLK STATE UNIVERSITY 9164
 PRE-SERVICE TEACHER CONFERENCE
 03/27/1995 - 05/31/1998 FY99: \$0 Total: \$394,509
Prin. Invest.: E WITTY
Tech. Officer: LARC/R HATHAWAY, LARC/E PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1937 NORFOLK STATE UNIVERSITY 9165
 THE SCIENCE AND MATH FOR EVERYONE PROJECT MY 1/2
 05/28/1997 - 08/30/1999 FY99: \$90,000 Total: \$360,000
Prin. Invest.: M NEWSOME
Tech. Officer: LARC/M CANRIGHT, LARC/E PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1944 NORFOLK STATE UNIVERSITY 9166
 VISUALIZATION OF ATMOSPHERIC WATER VAPOR DATA FOR SAGE
 06/09/1997 - 06/08/2000 FY99: \$92,687 Total: \$238,500
Prin. Invest.: M KUNG
Tech. Officer: LARC/W P CHU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1948 NORFOLK STATE UNIVERSITY 9167
 RURAL OUTREACH PROGRAM
 06/19/1997 - 06/30/2000 FY99: \$105,000 Total: \$360,000
Prin. Invest.: C COLEMAN
Tech. Officer: LARC/S CANRIGHT, LARC/E PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1967 NORFOLK STATE UNIVERSITY 9168
 NASA SDB DATA BASE DEVELOPMENT
 09/15/1997 - 09/14/1999 FY99: \$0 Total: \$41,000
Prin. Invest.: D JONES, R ASKEW
Tech. Officer: LARC/R HATHAWAY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2066 NORFOLK STATE UNIVERSITY 9169
 PRE-SERVICE TEACHER EDUCATION CONFERENCE
 05/01/1998 - 05/31/1999 FY99: \$25,000 Total: \$225,034
Prin. Invest.: E P WITTY
Tech. Officer: LARC/R HATHAWAY, LARC/E PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2098 NORFOLK STATE UNIVERSITY 9170
 PROVIDING A CONTINUUM OF SUPPORT FOR MINORITY STUDENTS AND
 TEACHERS IN HAMPTON ROADS, VA
 07/29/1998 - 04/30/2000 FY99: \$0 Total: \$96,000
Prin. Invest.: C COLEMAN
Tech. Officer: LARC/M D CANRIGHT, LARC/E PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2125 NORFOLK STATE UNIVERSITY 9171
 TECHNICAL EDUCATION OUTREACH MATERIALS SCIENCE AND TECHNOL-
 OGY BASED ON NASAS MATERIALS RESEARCH
 01/12/1999 - 12/31/2001 FY99: \$50,000 Total: \$50,000
Prin. Invest.: J JACOBS, S R CHAUDHURY
Tech. Officer: LARC/E T PRIOR, LARC/R HATHAWAY
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 2172 NORFOLK STATE UNIVERSITY 9172
 DEVELOPMENT OF SOLID-STATE LASER MATERIALS FOR APP LICATION IN
 LASERES FOR ATMOSPHERIC OZONE & WATER
 03/30/1999 - 12/31/2001 FY99: \$50,000 Total: \$50,000
Prin. Invest.: M NOGINOV, G LOUTTS
Tech. Officer: LARC/N P BARNES, LARC/J C BARNES
CASE Category: 13 - PHYSICS

NAG 1 2226 NORFOLK STATE UNIVERSITY 9173
 PORTSMOUTH ATMOSPHERIC SCIENCE SCHOOL PROJECT (PASS)
 08/24/1999 - 07/31/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: C COLEMAN
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2228 NORFOLK STATE UNIVERSITY 9174
 NONSELECTIVE ROOMTEMPERATURE MICROBOLOMETERS BASED ON
 CMB THIN FILMS
 08/30/1999 - 07/31/2001 FY99: \$98,108 Total: \$98,108
Prin. Invest.: E S GILLMAN, NONE
Tech. Officer: LARC/J C BARNES
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2230 NORFOLK STATE UNIVERSITY 9175
 PRE-SERVICE TEACHER CONFERENCE MY 1/2
 09/03/1999 - 07/31/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: P TUCKER-HOGAN
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2289 NORFOLK STATE UNIVERSITY 9176
 NOVEL HIGH EFFICIENT ORGANIC PHOTOVOLTAIC MATERIAL S
 08/30/1999 - 07/21/2001 FY99: \$148,579 Total: \$148,579
Prin. Invest.: S SUN
Tech. Officer: GRC/A F HEPP
CASE Category: 12 - CHEMISTRY

NAG 4 165 NORFOLK STATE UNIVERSITY 9177
 VARIATIONAL METHOD IN DESIGN OPTIMIZATION
 02/26/1999 - 02/26/2002 FY99: \$101,619 Total: \$101,619
Prin. Invest.: D HULBERT
Tech. Officer: DFRC/K GUPTA, DFRC/E COX
CASE Category: 41 - AERONAUTICAL ENGR

NASA'S UNIVERSITY PROGRAM

VIRGINIA

NAG 5 4962 NORFOLK STATE UNIVERSITY 9178
 SUMMER WORKSHOP PROG. TO PROVIDE EMERGING EDUCATOR &
 KNOWLEDGE TO UTILIZE IN CLASSROOM CURR. MATERIA
 06/25/1997 - 06/30/1998 FY99: -\$1,447 Total: \$18,203
Prin. Invest.: S CHAUNDHARY
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6298 NORFOLK STATE UNIVERSITY 9179
 NORFOLK STATE UNIVERSITY RESEARCH EXPERIENCE IN EA
 09/15/1997 - 05/31/2000 FY99: \$69,253 Total: \$147,662
Prin. Invest.: W J RODRIGUEZ
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8541 NORFOLK STATE UNIVERSITY 9180
 SUMMER WORKSHOP PROGRAM TO PROVIDE EMERGING EDUCATORS
 W/THE FAMILIARITY & KNOWLEDGE TO UTILIZE IN C
 05/12/1999 - 05/14/2000 FY99: \$19,949 Total: \$19,949
Prin. Invest.: S CHAUDHURY
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8653 NORFOLK STATE UNIVERSITY 9181
 DESIGN AND PERFORMANCE TESTS OF ULTRA-COMPACT CALORIMETERS
 FOR HIGH ENERGY ASTROPHYSICS
 08/19/1999 - 07/31/2000 FY99: \$99,732 Total: \$99,732
Prin. Invest.: C W SALGADO
Tech. Officer: GSFC/R E STREITMATTER
CASE Category: 11 - ASTRONOMY

NCC 1 200 NORFOLK STATE UNIVERSITY 9182
 COOPERATIVE PROGRAM FOR RESEARCH AND CURRICULUM DEVELOPMENT
 IN EARTH SYSTEM SCIENCE - MY1/3
 09/27/1994 - 04/30/1998 FY99: -\$29,946 Total: \$685,867
Prin. Invest.: S R CHAUDURY, T MARSHALL-BRADLEY
Tech. Officer: LARC/R HATHAWAY, LARC/E PRIOR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 1 280 NORFOLK STATE UNIVERSITY 9183
 FEASIBILITY STUDY OF PIEZOELECTRIC ACTUATORS DRIVEN BY A MICRO-
 WAVE
 03/06/1998 - 03/05/2001 FY99: \$100,001 Total: \$200,001
Prin. Invest.: K D SONG
Tech. Officer: LARC/S H CHOI
CASE Category: 46 - MECHANICAL ENGR

NCC 1 295 NORFOLK STATE UNIVERSITY 9184
 1998-SUMMER PRE-SERVICE TEACHER ENHANCEMENT INSTITUTE
 04/27/1998 - 06/30/1999 FY99: \$0 Total: \$242,000
Prin. Invest.: E WITTY
Tech. Officer: LARC/R HATHAWAY, LARC/E PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 1 338 NORFOLK STATE UNIVERSITY 9185
 1999 SUMMER PRE-SERVICE TEACHER ENHANCEMENT INSTITUTE
 04/15/1999 - 03/31/2000 FY99: \$245,972 Total: \$245,972
Prin. Invest.: R TUCKER-HOGAN, R CHAUDHURY
Tech. Officer: LARC/R HATHAWAY, LARC/E J PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 1 52175 NORFOLK STATE UNIVERSITY 9186
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/03/1997 - 09/02/1998 FY99: -\$54 Total: \$21,947
Prin. Invest.: H R RIES
Tech. Officer: LARC/J O SIMPSON, LARC/J A HINKLEY
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 648 OLD DOMINION UNIVERSITY 9187
 UNSTEADY HYBRID VORTEX TECHNIQUE FOR TRANSONIC FLOW
 FLOWS AND FLUTTER APPLICATIONS
 02/20/1986 - 11/30/1998 FY99: -\$296 Total: \$663,053
Prin. Invest.: O A KANDIL
Tech. Officer: LARC/J B MALONE, LARC/W WHITLOW
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 858 OLD DOMINION UNIVERSITY 9188
 PARALLEL PROCEDURES FOR STATICS, EIGENVALUE ANALYSIS AND
 STRUCTURAL DYNAMICS
 02/24/1988 - 06/30/1998 FY99: -\$23 Total: \$491,451
Prin. Invest.: D T NGUYEN
Tech. Officer: LARC/O O STORAASLI, LARC/S BOSTIC
CASE Category: 46 - MECHANICAL ENGR

NAG 1 908 OLD DOMINION UNIVERSITY 9189
 EXTREMELY HIGH DATA-RATE, RELIABLE NETWORK SYSTEMS RESEARCH
 09/02/1988 - 08/15/1998 FY99: -\$20 Total: \$171,545
Prin. Invest.: K MALY
Tech. Officer: LARC/N D MURRAY/W H BRYANT
CASE Category: 22 - COMPUTER SCIENCE

NAG 1 1140 OLD DOMINION UNIVERSITY 9190
 AN INVESTIGATION OF GLOW DISCHARGE MEMBRANE SEPARATION OF
 OXYGEN FROM MARS ATMOSPHERE
 05/07/1990 - 12/31/1997 FY99: -\$7 Total: \$270,377
Prin. Invest.: R L ASH
Tech. Officer: GRC/R A OUTLAW, GRC/J H LEE
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1578 OLD DOMINION UNIVERSITY 9191
 DEVELOPMENT OF A Ti:AL₂O₃ LASER FOR REMOTE SENSING OF THE
 ATMOSPHERE NLPN 93-1104
 12/16/1993 - 12/31/1997 FY99: -\$901 Total: \$103,006
Prin. Invest.: H ELSAYED-ALI, W SITU
Tech. Officer: LARC/E V BROWELL, LARC/A F CARTER
CASE Category: 13 - PHYSICS

NAG 1 1677 OLD DOMINION UNIVERSITY 9192
 PREDICTION AND CONTROL OF SUPERSONIC JET NOISE
 01/13/1995 - 09/30/1998 FY99: -\$5 Total: \$127,996
Prin. Invest.: P BALAKUMAR
Tech. Officer: LARC/M G MACARAEG
CASE Category: 11 - ASTRONOMY

NAG 1 1684 OLD DOMINION UNIVERSITY 9193
 EXPERIMENTAL AND NUMERICAL ANALYSES OF STRUCTURAL ACOUSTIC
 CONTROL FOR INTERIOR NOISE REDUCTION
 01/10/1995 - 01/09/1999 FY99: \$0 Total: \$301,782
Prin. Invest.: C MEI
Tech. Officer: LARC/T L TURNER, LARC/K P SHEPHERD
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1692 OLD DOMINION UNIVERSITY 9194
 PARALLEL IMPLICIT ALGORITHMS FOR CFD
 02/23/1995 - 09/30/1998 FY99: -\$868 Total: \$149,133
 Prin. Invest.: D E KEYES
 Tech. Officer: LARC/N D MELSON, LARC/J L THOMAS
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 1 1853 OLD DOMINION UNIVERSITY 9195
 PERFORMANCE EVALUATION OF DATA LINK ARCHITECTURES FOR LVASO
 07/01/1996 - 09/30/1998 FY99: -\$19 Total: \$40,446
 Prin. Invest.: D MUKKAMALA
 Tech. Officer: LARC/R W WILLIS
 CASE Category: 22 - COMPUTER SCIENCE

NAG 1 1869 OLD DOMINION UNIVERSITY 9196
 MEASUREMENT OF OXYGEN A BAND LINE PARAMETERS BY USING MOD-
 ULATION SPECTROSCOPY WITH HIGHER HARMONIC
 09/17/1996 - 03/16/1999 FY99: \$0 Total: \$88,487
 Prin. Invest.: A N DHARAMSI
 Tech. Officer: LARC/W P CHU
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1934 OLD DOMINION UNIVERSITY 9197
 PSE COMPUTATIONS IN THE STRONGLY NONLINEAR REGION
 06/10/1997 - 01/05/1998 FY99: -\$382 Total: \$21,619
 Prin. Invest.: M H MORGANMAR
 Tech. Officer: LARC/J W POSEY
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1940 OLD DOMINION UNIVERSITY 9198
 THE REDUCTION OF DUCTED FAN ENGINE NOISE VIA A BOUNDARY INTE-
 GRAL EQUATION METHOD
 05/29/1997 - 05/31/1999 FY99: \$81,192 Total: \$277,704
 Prin. Invest.: J TWEED, M DUNN
 Tech. Officer: LARC/F FARASSAT, LARC/J W POSEY
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 1 1982 OLD DOMINION UNIVERSITY 9199
 FINITE ELEMENT ANALYSIS OF REVERBERATION CHAMBERS MY 1/3
 12/15/1997 - 12/31/2000 FY99: \$65,714 Total: \$103,214
 Prin. Invest.: C F BUNTING, D T NGUYEN
 Tech. Officer: LARC/K J MOELLER
 CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1985 OLD DOMINION UNIVERSITY 9200
 SOLUTION STRATEGY FOR NONLINEAR HEAT TRANSFER PROBLEMS MOD-
 ELED BY HP-VERSION GALERKIN METHODS
 12/18/1997 - 12/31/1998 FY99: \$0 Total: \$48,000
 Prin. Invest.: G J HOU
 Tech. Officer: LARC/K S BEY
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1989 OLD DOMINION UNIVERSITY 9201
 A STEP-SCAN FT-RAMAN FIBER-OPTIC SPECTROMETER FOR THERMO-
 SET COMPOSIT ANALYSIS
 01/06/1998 - 02/05/1999 FY99: \$12,101 Total: \$104,499
 Prin. Invest.: J B COOPER
 Tech. Officer: LARC/B J JENSEN
 CASE Category: 12 - CHEMISTRY

NAG 1 1995 OLD DOMINION UNIVERSITY 9202
 DIAMOND ELECTRON TUNNELING MICROELECTROMECHANICAL SENSOR
 01/23/1998 - 01/22/2000 FY99: \$94,187 Total: \$149,187
 Prin. Invest.: S ALBIN
 Tech. Officer: LARC/S K KAHNG
 CASE Category: 45 - ELECTRICAL ENGR

NAG 1 2037 OLD DOMINION UNIVERSITY 9203
 BENCHMARKING THE FUTURE AUTOMATED AIR TRAFFIC MANA GEMENT
 SYS
 03/24/1998 - 12/31/1998 FY99: \$2,957 Total: \$17,957
 Prin. Invest.: K MALY
 Tech. Officer: LARC/R W WILLIS
 CASE Category: 22 - COMPUTER SCIENCE

NAG 1 2054 OLD DOMINION UNIVERSITY 9204
 DEEPOLEMENT OF A THREE-DIMENSIONAL PSE CODE FOR COM PRESS-
 IBLE FLOWS
 04/09/1998 - 09/30/1998 FY99: -\$2 Total: \$9,999
 Prin. Invest.: P BALAKUMAR
 Tech. Officer: LARC/R A THOMPSON
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2082 OLD DOMINION UNIVERSITY 9205
 REMOTE SENSED PATTERNS SURFACES IN COASTAL WATERS USING
 LANDSAT TM IMAGERY & REFLECTED GPSPower
 06/26/1998 - 08/31/1999 FY99: \$1 Total: \$24,965
 Prin. Invest.: G F OERTEL, T R ALLEN
 Tech. Officer: LARC/S J KATZBERG, LARC/J L GARRISON
 CASE Category: 39 - ENVIRONMENTALSCI, OTHER

NAG 1 2100 OLD DOMINION UNIVERSITY 9206
 TRANSITION IN SUPERSONIC FLOWS WITH CORNERS
 08/11/1998 - 08/15/2000 FY99: \$35,000 Total: \$48,000
 Prin. Invest.: P BALAKUMAR
 Tech. Officer: LARC/C R MCCLINTON, LARC/D E REUBUSH
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2101 OLD DOMINION UNIVERSITY 9207
 THE INFLUENCE OF NAT. CULTURE ON FLT CREW PERF: A CULTURE-CEN-
 TERED APPROACH TO HUMAN FACTORS
 08/25/1998 - 08/31/2000 FY99: \$54,974 Total: \$84,974
 Prin. Invest.: D DAVIS
 Tech. Officer: LARC/P C SCHUTTE
 CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NAG 1 2102 OLD DOMINION UNIVERSITY 9208
 DATA LINK PERFORMANCE ANALYSIS FOR LVLASO EXPERIMENTS
 08/25/1998 - 09/30/1998 FY99: -\$438 Total: \$9,562
 Prin. Invest.: R MUKKAMALA
 Tech. Officer: LARC/R W WILLIS
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2105 OLD DOMINION UNIVERSITY 9209
 BIOCYBERNETIC CONTROL OF VIGILANCE TASK PARAMETERS
 09/11/1998 - 12/31/1999 FY99: \$40,000 Total: \$50,000
 Prin. Invest.: F G FREEMAN, M W SCERBO, P J MIKULKA
 Tech. Officer: LARC/A T POPE, LARC/L J PRINZEL
 CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 1 2118 OLD DOMINION UNIVERSITY 9210
 THE PREDICTION OF NOISE SCATTERED BY A WING/ DUCTED FAN CON-
 FIGURATION
 11/05/1998 - 11/30/1999 FY99: \$73,566 Total: \$73,566
Prin. Invest.: J TWEED, M DUNN
Tech. Officer: LARC/J S PREISSER, LARC/F FARASSAT
CASE Category: 13 - PHYSICS

NAG 1 2121 OLD DOMINION UNIVERSITY 9211
 DISTURBANCE DYNAMICS IN TRANSITIONAL AND TURBULENT FLOWS
 01/05/1999 - 12/31/1999 FY99: \$15,001 Total: \$15,001
Prin. Invest.: C E GROSCH
Tech. Officer: LARC/T B GATSKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2123 OLD DOMINION UNIVERSITY 9212
 SIGNAL PROCESSING AND SOFTWARE ENHANCEMENTS FOR THE ACOUS-
 TIC FETAL HEART RATE MONITOR
 12/09/1998 - 08/31/1999 FY99: \$15,001 Total: \$15,001
Prin. Invest.: S A ZAHORIAN
Tech. Officer: LARC/A J ZUCKERWAR
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 2141 OLD DOMINION UNIVERSITY 9213
 EXPERIMENTAL & NUMERICAL ANALYSIS OF STRUCTURAL ACOUSTIC
 CONTROL FOR INTERIOR NOISE REDUCTION
 02/03/1999 - 01/09/2000 FY99: \$42,000 Total: \$42,000
Prin. Invest.: C MEI
Tech. Officer: LARC/T L TURNER, LARC/K P SHEPHERD
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2143 OLD DOMINION UNIVERSITY 9214
 OBJECT-ORIENTED APPROACH TO HIGHER-LEVEL NETWORK MONITOR-
 ING AND MANAGEMENT
 02/01/1999 - 11/30/1999 FY99: \$31,217 Total: \$31,217
Prin. Invest.: R MUKKAMALA
Tech. Officer: LARC/E SIMAN-TOV
CASE Category: 22 - COMPUTER SCIENCE

NAG 1 2150 OLD DOMINION UNIVERSITY 9215
 PANEL FLUTTER AND SONIC FATIGUE ANALYSIS FOR RLV
 02/09/1999 - 12/31/1999 FY99: \$40,000 Total: \$40,000
Prin. Invest.: C MEI
Tech. Officer: LARC/M L BLOSSER, LARC/S J SCOTTI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2156 OLD DOMINION UNIVERSITY 9216
 A COMPARISON OF QUASI-STATIC INDENTATION & DROP-WT IMPACT
 TESTING ON CARBON/EPOXY LAMINATES
 03/16/1999 - 12/15/1999 FY99: \$35,000 Total: \$35,000
Prin. Invest.: R PRABHAKARAN
Tech. Officer: LARC/I S RAJU, LARC/J R REEDER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2157 OLD DOMINION UNIVERSITY 9217
 DEV OF RESPONSE SURFACE MODELS FOR RAPID ANAL AND MULTIDIS-
 CIPL OPTIMIZ OF LAUNCH VEH DESIGN CONCEPTS
 03/26/1999 - 12/31/1999 FY99: \$28,079 Total: \$28,079
Prin. Invest.: R UNAL
Tech. Officer: LARC/M K LOCKWOOD
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 2184 OLD DOMINION UNIVERSITY 9218
 PARALLEL CFD 1999 INTERNATIONAL CONFERENCE (CONFERENCE
 5/23-26/99 IN WMSBG, VA)
 04/20/1999 - 08/19/1999 FY99: \$10,001 Total: \$10,001
Prin. Invest.: D E KEYES
Tech. Officer: LARC/D H RUDY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2195 OLD DOMINION UNIVERSITY 9219
 PROCESS COST MODELING FOR MULTIDISCIPLINARY DESIGN APPLICA-
 TIONS
 05/21/1999 - 09/30/2001 FY99: \$25,000 Total: \$25,000
Prin. Invest.: H P BAO
Tech. Officer: LARC/W T FREEMAN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2199 OLD DOMINION UNIVERSITY 9220
 GEOGRAPHICAL DATABASE INTEGRITY VALIDATION
 06/25/1999 - 04/30/2000 FY99: \$8,000 Total: \$8,000
Prin. Invest.: P J KAUFMANN, D A JACOBS
Tech. Officer: LARC/S D YOUNG
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 2211 OLD DOMINION UNIVERSITY 9221
 DEVELOPMENT OF A TRANSIENT CUT-OFF GRID FOR FOCUS SCHLIEN
 07/12/1999 - 06/14/2002 FY99: \$26,000 Total: \$26,000
Prin. Invest.: G R HOY, K S SCHANZE
Tech. Officer: LARC/M A TALLEY, LARC/A W BURNER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 1 2212 OLD DOMINION UNIVERSITY 9222
 TO CONDUCT/MGT OF NATIONAL GENERAL AVIATION DESIGN COMPETI-
 TION
 06/29/1999 - 12/31/1999 FY99: \$25,000 Total: \$25,000
Prin. Invest.: M L SANDY
Tech. Officer: LARC/H W JARRETT, 111, LARC/B J HOLMES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1319 OLD DOMINION UNIVERSITY 9223
 PRELIMINARY ANALYSIS OF PHOTOREADING
 04/21/1999 - 09/30/1999 FY99: \$9,965 Total: \$9,965
Prin. Invest.: D S MCNAMARA
Tech. Officer: ARC/I BARSHI
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 5 3567 OLD DOMINION UNIVERSITY 9224
 NASA SPACEPORT INFRASTRUCTURE GRANT PROGRAM TO SUPPORT
 DEVELOPMENT OF VIRGINIA SPACEFLIGHTCENTER
 01/16/1997 - 01/14/1998 FY99: \$0 Total: \$406,250
Prin. Invest.: B M REED
Tech. Officer: GSFC/G ALCORN, GSFC/N MINNIFIELD
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4515 OLD DOMINION UNIVERSITY 9225
 STUDYING THE EARTH'S ENVIRONMENT IN SPACE: CLASSR ACTIVITIES
 WITH INSTRUCTION RESOURCES
 06/02/1997 - 05/31/2000 FY99: \$0 Total: \$169,557
Prin. Invest.: E SMITH
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5100 **OLD DOMINION UNIVERSITY** **9226**
IMPROVEMENTS TO BALLOON VERTICAL PERFORMANCE MODEL TERRESTRIAL & NON-TERRESTRIAL APPLICATIONS
02/11/1997 - 09/30/1999 FY99: \$0 Total: \$79,943
Prin. Invest.: G V SELBY
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 5131 **OLD DOMINION UNIVERSITY** **9227**
INVOLVING STUDENTS IN THE DESIGNING AND DEVELOPING OF A SCIENTIFIC BALLOON PAYLOAD-BALLOONLAUNCH PR
07/02/1997 - 09/30/1999 FY99: \$0 Total: \$35,000
Prin. Invest.: A PIERCE
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 12 - CHEMISTRY

NAG 5 6491 **OLD DOMINION UNIVERSITY** **9228**
GEOSPATIAL EDUCATION AND RESEARCH DEVELOPMENT: A LABORATORY FOR REMOTE SENSING AND ENVIRONMENTAL ANALYSIS
10/27/1997 - 09/30/1998 FY99: \$0 Total: \$95,000
Prin. Invest.: T ALLEN, JR.
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 956 **OLD DOMINION UNIVERSITY** **9229**
RADIO FREQUENCY DISCHARGE ENHANCEMENT OF OXYGEN PRODUCTION FROM CO₂
08/27/1997 - 09/01/1998 FY99: -\$288 Total: \$49,712
Prin. Invest.: L VUSKOVIC
Tech. Officer: JSC/D I KAPLAN, JSC/G B SANDERS
CASE Category: 13 - PHYSICS

NAGW 3550 **OLD DOMINION UNIVERSITY** **9230**
ASSIMILATION OF OCEAN COLOR MEASUREMENT INTO PHYSICAL BIOLOGICAL MODELS
04/29/1993 - 05/31/1999 FY99: \$0 Total: \$485,000
Prin. Invest.: E HOFMANN
Tech. Officer: HQ/R E MURPHY, HQ/D M BUTLER
CASE Category: 33 - OCEANOGRAPHY

NAS 1 19858 **OLD DOMINION UNIVERSITY** **9231**
RESEARCH IN AERODYNAMICS AND RELATED FIELDS
11/05/1992 - 11/04/1998 FY99: -\$44,667 Total: \$8,776,033
Prin. Invest.:
Tech. Officer: LARC/E J PRIOR, LARC/R L YANG
CASE Category: 41 - AERONAUTICAL ENGR

NAS 1 99093 **OLD DOMINION UNIVERSITY** **9232**
ROBUST STABILITY AND PERFORMANCE OF A CLOSED-LOOP COMPUTER CONTROL SYSTEM SUBJECT TO ELECTROMAGNETIC INTERFERENCE
04/01/1999 - 03/31/2000 FY99: \$176,516 Total: \$176,516
Prin. Invest.: W GRAY
Tech. Officer: LARC/C BELCASTRO
CASE Category: 41 - AERONAUTICAL ENGR

NAS 1 99160 **OLD DOMINION UNIVERSITY** **9233**
TESTBED OF INTEROPERABLE MULTIDISCIPLINARY DIGITAL LIBRARIES
09/22/1999 - 09/21/2000 FY99: \$105,158 Total: \$105,158
Prin. Invest.: K MALY
Tech. Officer: LARC/M M LITTLE, LARC/N R KAPLAN
CASE Category: 22 - COMPUTER SCIENCE

NAS 5 97132 **OLD DOMINION UNIVERSITY** **9234**
REMOTE SENSING OF OCEAN COLOR IN THE ARCTIC
09/01/1997 - 09/01/2000 FY99: \$384,066 Total: \$640,608
Prin. Invest.: G F COTA
Tech. Officer: GSFC/C MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NCC 1 42 **OLD DOMINION UNIVERSITY** **9235**
A STUDY OF PHYSICAL PROCESSES FOR SPACE-RELATED PROTECTION
06/04/1980 - 09/30/1998 FY99: -\$324 Total: \$1,606,564
Prin. Invest.: G S KHANDELWAL
Tech. Officer: LARC/L W TOWNSEND, LARC/E J CONWAY
CASE Category: 13 - PHYSICS

NCC 1 227 **OLD DOMINION UNIVERSITY** **9236**
INVESTIGATION OF ADVANCED COMPOSITE MATERIALS AND AUTOMATED PROCESS
05/17/1996 - 11/30/1999 FY99: \$182,631 Total: \$739,793
Prin. Invest.: S TIWARI
Tech. Officer: LARC/N J JOHNSTON, LARC/R J CANO
CASE Category: 46 - MECHANICAL ENGR

NCC 1 230 **OLD DOMINION UNIVERSITY** **9237**
LIDAR DETECTION SYSTEM DEVELOPMENT OF AN ADVANCED WATER VAPOR
06/10/1996 - 06/15/1998 FY99: -\$20 Total: \$51,934
Prin. Invest.: H EL SAYID EL
Tech. Officer: LARC/R J DE YOUNG
CASE Category: 45 - ELECTRICAL ENGR

NCC 1 232 **OLD DOMINION UNIVERSITY** **9238**
INSTITUTE FOR SCIENTIFIC AND EDUCATIONAL TECHNOLOGY (ISET)
06/17/1996 - 06/30/1999 FY99: \$112,480 Total: \$1,189,135
Prin. Invest.: S TIWARI
Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 248 **OLD DOMINION UNIVERSITY** **9239**
MAGNETIC SUSPENSION TECHNOLOGY DEVELOPMENT
01/09/1997 - 05/31/1998 FY99: -\$48 Total: \$42,166
Prin. Invest.: C P BRITCHER
Tech. Officer: LARC/N J GROOM
CASE Category: 49 - ENGINEERING, OTHER

NCC 1 254 **OLD DOMINION UNIVERSITY** **9240**
ASSESSMENT OF BIOMEDICAL ENGINEERING IN MAN/MACHINE INTERACTIONS
04/22/1997 - 10/21/1999 FY99: \$20,422 Total: \$67,897
Prin. Invest.: S TIWARI
Tech. Officer: LARC/A T POPE
CASE Category: 46 - MECHANICAL ENGR

NCC 1 273 **OLD DOMINION UNIVERSITY** **9241**
CONTROL DESIGN STRATEGIES TO ENHANCE LONG-TERM AIRCRAFT STRUCTURAL INTEGRITY
01/12/1998 - 01/11/1999 FY99: -\$185 Total: \$26,315
Prin. Invest.: B A NEWMAN
Tech. Officer: LARC/S M JOSHI
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 284 **OLD DOMINION UNIVERSITY** **9242**
 SIMULATION OF STRUCTURAL DAMAGE AND ITS PROPAGATION IN COMPOSITE SHELLS INCLUDING INTERLAMINAR
 04/07/1998 - 10/31/1999 FY99: \$67,496 Total: \$146,496
Prin. Invest.: C MEI
Tech. Officer: LARC/J H STARNES, LARC/D R AMBUR
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 320 **OLD DOMINION UNIVERSITY** **9243**
 STUDY OF APPLICATION OF GREEN'S FUNCTION METHODS APPLIED TO SPACE RADIATION PROTECTION
 09/23/1998 - 09/30/2001 FY99: \$56,000 Total: \$81,955
Prin. Invest.: J H HEINBOCKEL
Tech. Officer: LARC/R C SINGLETERRY, LARC/J W WILSON
CASE Category: 13 - PHYSICS

NCC 1 322 **OLD DOMINION UNIVERSITY** **9244**
 EXPERIMENTAL DEVELOPMENT AND PHYSICAL ANALYSIS OF JET AND VORTEX ACTUATORS
 11/17/1998 - 01/15/2000 FY99: \$50,915 Total: \$50,915
Prin. Invest.: O A KANDIL, J T LACHOWICZ
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 349 **OLD DOMINION UNIVERSITY** **9245**
 INSTITUTE FOR SCIENTIFIC & EDUCATIONAL TECHNOLOGY (FOLLOW-ON TO NCC-1-232)
 06/28/1999 - 06/30/2000 FY99: \$224,973 Total: \$224,973
Prin. Invest.: S N TIWARI
Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR
CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 258 **OLD DOMINION UNIVERSITY** **9246**
 PHYSICAL-BIOLOGICAL INTERACTIONS IN THE GLOBAL EQUATORIAL SURFACE LAYER
 11/17/1997 - 10/31/1999 FY99: \$125,844 Total: \$244,890
Prin. Invest.: E HOFMANN
Tech. Officer: GSFC/G ASRAR
CASE Category: 11 - ASTRONOMY

NGT 51247 **OLD DOMINION UNIVERSITY** **9247**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/14/1994 - 09/30/1997 FY99: -\$102 Total: \$43,898
Prin. Invest.: A C TAYLOR
Tech. Officer: LARC/L EVANS
CASE Category: 46 - MECHANICAL ENGR

NGT 1 52123 **OLD DOMINION UNIVERSITY** **9248**
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 05/15/1996 - 12/30/1998 FY99: \$4,598 Total: \$48,602
Prin. Invest.: L J PRINZEL, F G FREEMAN
Tech. Officer: LARC/A T POPE, LARC/J R COMSTOCK, JR.
CASE Category: 69 - PSYCHOLOGY, OTHER

NGT 1 52124 **OLD DOMINION UNIVERSITY** **9249**
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 05/15/1996 - 06/30/2000 FY99: \$22,000 Total: \$76,000
Prin. Invest.: K L WISE, J B COOPER
Tech. Officer: LARC/B J JENSEN
CASE Category: 12 - CHEMISTRY

NGT 1 52130 **OLD DOMINION UNIVERSITY** **9250**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/06/1996 - 06/30/1998 FY99: -\$1 Total: \$44,000
Prin. Invest.: S A SCEARCE
Tech. Officer: LARC/R WILLIAMS, LARC/T NGUYEN
CASE Category: 45 - ELECTRICAL ENGR

NGT 1 52157 **OLD DOMINION UNIVERSITY** **9251**
 NASA-ASEE SUMMER FACULTY FELLOWSHIP PROGRAM
 03/11/1997 - 12/31/1998 FY99: -\$48,752 Total: \$589,249
Prin. Invest.: S TIWARI
Tech. Officer: LARC/R A HATHAWAY, LARC/E J PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 1 52168 **OLD DOMINION UNIVERSITY** **9252**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/14/1997 - 06/30/1998 FY99: -\$1 Total: \$22,000
Prin. Invest.: P SHEA
Tech. Officer: LARC/W T CHU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 1 52171 **OLD DOMINION UNIVERSITY** **9253**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 05/29/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: C P BRITCHER
Tech. Officer: LARC/N J GROOW
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52173 **OLD DOMINION UNIVERSITY** **9254**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/07/1997 - 06/30/1999 FY99: \$12,000 Total: \$44,000
Prin. Invest.: C MEI
Tech. Officer: LARC/J H STARNES, JR.
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52192 **OLD DOMINION UNIVERSITY** **9255**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/20/1998 - 06/30/1999 FY99: \$12,001 Total: \$22,001
Prin. Invest.: T M EISCHEID, M SCERBO
Tech. Officer: LARC/A T POPE, LARC/P C SCHUTTE
CASE Category: 69 - PSYCHOLOGY, OTHER

NGT 1 52193 **OLD DOMINION UNIVERSITY** **9256**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/20/1998 - 06/30/2000 FY99: \$22,000 Total: \$32,000
Prin. Invest.: A FITZGIBBONS
Tech. Officer: LARC/P C SHUTTE
CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NGT 1 52194 **OLD DOMINION UNIVERSITY** **9257**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/20/1998 - 06/30/2000 FY99: \$22,000 Total: \$32,000
Prin. Invest.: D RICHMOND, S ALBIN
Tech. Officer: LARC/S K KAHNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 1 52201 **OLD DOMINION UNIVERSITY** **9258**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 08/31/1998 - 06/30/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C K AASEN
Tech. Officer: LARC/A E MOTLEY, III, LARC/A G HAGEMANN
CASE Category: 49 - ENGINEERING, OTHER

NGT 1 52208 **OLD DOMINION UNIVERSITY** **9259**
 NASA-ASEE SUMMER FACULTY RESEARCH PROGRAM
 03/11/1999 - 12/31/1999 FY99: \$605,221 Total: \$605,221
Prin. Invest.: S N TUIVORE
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 1 52210 **OLD DOMINION UNIVERSITY** **9260**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/26/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: D T NGUYEN
Tech. Officer: LARC/J SOBIESKI
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52211 **OLD DOMINION UNIVERSITY** **9261**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/26/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: H SAYID ELE
Tech. Officer: LARC/R J DEYOUNG
CASE Category: 45 - ELECTRICAL ENGR

NGT 1 52213 **OLD DOMINION UNIVERSITY** **9262**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/28/1999 - 06/30/2000 FY99: \$15,400 Total: \$15,400
Prin. Invest.: C M FITZGERALD, DHARAMSI
Tech. Officer: LARC/G J KOCH
CASE Category: 45 - ELECTRICAL ENGR

NGT 1 52219 **OLD DOMINION UNIVERSITY** **9263**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/04/1999 - 06/30/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: F G FREEMAN
Tech. Officer: LARC/A T POPE, LARC/L J PRINZED, 111
CASE Category: 61 - PSYCHOLOGY BIOLOGY

NGT 1 52220 **OLD DOMINION UNIVERSITY** **9264**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/04/1999 - 06/30/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: M W SCEBA
Tech. Officer: LARC/A T POPE, LARC/L J PRINZEL, 111
CASE Category: 61 - PSYCHOLOGY BIOLOGY

NGT 1 52221 **OLD DOMINION UNIVERSITY** **9265**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/29/1999 - 06/30/2000 FY99: \$10,000 Total: \$10,000
Prin. Invest.: A A FINK, D A MAJOR
Tech. Officer: LARC/P C SCHUTTE
CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NGT 5 40009 **OLD DOMINION UNIVERSITY** **9266**
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA CONSORTIUM
 11/16/1996 - 11/30/1997 FY99: \$0 Total: \$103,086
Prin. Invest.: M L SANDY
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40059 **OLD DOMINION UNIVERSITY** **9267**
 IN SUPPORT OF THE NATIONAL SPACE GRANT COLLEGE PROGRAM
 02/21/1997 - 01/31/2000 FY99: \$487,998 Total: \$1,477,998
Prin. Invest.: M L SANDY
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90043 **OLD DOMINION UNIVERSITY** **9268**
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 01/30/1997 - 12/31/1997 FY99: -\$5,954 Total: \$6,046
Prin. Invest.: N BRONW-HILL
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 5053 **ROANOKE COLLEGE** **9269**
 CROSS SECTION CALCULATION FOR COSMIC RAY DATA ANALYSIS OF NASA SPONSORED EXPERIMENTS
 03/27/1996 - 09/30/1998 FY99: \$0 Total: \$80,000
Prin. Invest.: C TASCO
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5165 **ROANOKE COLLEGE** **9270**
 IMPROVED MODELING FOR THE COSMIC RAY ORIGIN FUNDING FOR FIRST YEAR OF GRANT
 03/09/1998 - 12/31/1999 FY99: \$40,000 Total: \$80,000
Prin. Invest.: C H TSAO
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 8 1208 **ROANOKE COLLEGE** **9271**
 JOVE
 09/25/1995 - 04/30/2000 FY99: \$0 Total: \$51,008
Prin. Invest.: A F BARGHOUTY
Tech. Officer: MSFC/D SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 13 **SHENANDOAH UNIVERSITY** **9272**
 SUMMER FACULTY FELLOWSHIP
 09/24/1996 - 04/30/1999 FY99: -\$1,215 Total: \$13,785
Prin. Invest.: S LEMOINE
Tech. Officer: JSC/E PRITCHARD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 1 745 **UNIVERSITY OF VIRGINIA** **9273**
 ENVIRONMENT ASSISTED DEGRADATION MECHANISMS IN ALUMINUM-LITHIUM ALLOYS
 03/23/1987 - 12/31/1999 FY99: \$0 Total: \$8,724,953
Prin. Invest.: R P GANGLOFF, G E STONER
Tech. Officer: LARC/D L DICUS, LARC/D M ROYSTER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1123		UNIVERSITY OF VIRGINIA		9274	
SOFTWARE	FAULT	TOLERANCE	USING	DATA	DIVERSITY
				FDP	
04/02/1990 - 01/06/1999		FY99: \$0		Total: \$753,380	
Prin. Invest.: J C KNIGHT					
Tech. Officer: LARC/D E ECKHARDT					
CASE Category: 22 - COMPUTER SCIENCE					

NAG 1 1678	UNIVERSITY OF VIRGINIA	9275
TECHNOLOGY FOR ELEVATED TEMPERATURE TESTS OF STRUCTURAL PANELS		
01/30/1995 - 12/31/1998	FY99: \$0	Total: \$190,744
<i>Prin. Invest.:</i> E A THORNTON, G LAUFER		
<i>Tech. Officer:</i> LARC/S J SCOTTI, LARC/J W SAWYER		
<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		

NAG 1 1774	UNIVERSITY OF VIRGINIA	9276
LASE VALIDATION EXPERIMENT		
10/24/1995 - 03/31/1999	FY99: \$0	Total: \$96,893
<i>Prin. Invest.:</i> M GARSTANG		
<i>Tech. Officer:</i> LARC/E V BROWELL, LARC/E J CONWAY		
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE		

NAG 1 1841 **UNIVERSITY OF VIRGINIA** **9277**
NASA/JVA LIGHT AEROSPACE ALLOY AND STRUCTURES TECH PROGRAM
(LA2ST)
05/31/1996 - 05/31/1999 FY99: \$0 Total: \$120,000
Prin. Invest.: R P GANGLOFF
Tech. Officer: LARC/R S PIASCIK
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1953	UNIVERSITY OF VIRGINIA	9278
INTELLIGENT PROCESSING OF MATERIALS		
08/13/1997 - 01/31/1999	FY99: \$0	Total: \$300,001
<i>Prin. Invest.: H N WADLEY</i>		
<i>Tech. Officer: HQ/C MOORE</i>		
<i>CASE Category: 47 - METAL & MATERIALS ENGR</i>		

NAG 1 1962 UNIVERSITY OF VIRGINIA 9279
DEPOSITION OF FILMS FOR OPTIMAL GIANT MAGNETS RESI STANCE
08/21/1997 - 05/31/1999 FY99: \$0 Total: \$700,000
Prin. Invest.: H N WADLEY
Tech. Officer: LARC/B R HANKS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1964	UNIVERSITY OF VIRGINIA	9280
INTELLIGENT PROCESSING OF MATERIALS FOR DESIGN AND MANUFACTURING, ETC.		
09/30/1997 - 06/30/2000	FY99: \$1,431,566	Total: \$4,877,789
<i>Prin. Invest.:</i> H N WADLEY		
<i>Tech. Officer:</i> LARC/C MOORE		
<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		

NAG 1 2004	UNIVERSITY OF VIRGINIA	9281
IMPEDANCE MODULATION.		
02/11/1998 - 06/30/1999	FY99: \$40,000	Total: \$136,501
<i>Prin. Invest.: W E ZORUMSKI</i>		
<i>Tech. Officer: LARC/C HGERHOLD, LARC/J W POSEY</i>		
<i>CASE Category: 41 - AERONAUTICAL ENGR</i>		

NAG 1 2016	UNIVERSITY OF VIRGINIA	9282
EFFECT OF DISCONTINUITIES AND UNCERTAINTIES ON THE RESPONSE		
AND FAILURE OF COMPOSITE STRUCTURES		
02/27/1998 - 01/31/2000	FY99: \$101,613	Total: \$183,713
Prin. Invest.: A K NOOR		
Tech. Officer: LARC/J H STARNES		
CASE Category: 41 - AERONAUTICAL ENGR		

NAG 1 2031	UNIVERSITY OF VIRGINIA	9283
LOAD DIFFUSION IN COMPOSITE STRUCTURES		
03/25/1998 - 03/24/2000	FY99: \$19,333	Total: \$39,333
<i>Prin. Invest.:</i> C O HORGAN		
<i>Tech. Officer:</i> LARC/J H STARNES, LARC/M P NEMETH		
<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		

NAG 1 2085	UNIVERSITY OF VIRGINIA	9284
DUAL-MODE COMBUSTION		
06/30/1998 - 09/30/1998	FY99: \$1	Total: \$200,001
<i>Prin. Invest.:</i> J C MCDANIEL, E H MASLEN, H K CHELLAH		
<i>Tech. Officer:</i> LARC/D E REUBUSH, LARC/C R MCCLINTON		
<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		

NAG 1 2120 UNIVERSITY OF VIRGINIA 9285
REACTION CONTROL SYSTEMS FLOWFIELDS MEASUREMENTS
 12/01/1998 - 03/30/1999 FY99: \$20,000 Total: \$20,000
Prin. Invest.: J C MCDANIEL
Tech. Officer: LARC/C E GLASS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2131	UNIVERSITY OF VIRGINIA	9286
DUAL-MODE COMBUSTION (FOLLOW-ON TO NAG-1-2085)		
01/26/1999 - 10/31/2001	FY99: \$200,000	Total: \$200,000
<i>Prin. Invest.:</i> J C MCDANIEL, E H MASLAN, H K CHELLIAH		
<i>Tech. Officer:</i> LARC/D E REUBUSH, LARC/C R MCCLINTON		
<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		

NAG 1 2176 UNIVERSITY OF VIRGINIA 9287
DAMAGE-TOLERANCE OF LIGHT AEROSPACE ALLOYS UNDER DEMANDING
MECHANICAL & ELECTROCHEMICAL CONDITIONS
 03/31/1999 - 12/31/2000 FY99: \$343,937 Total: \$343,937
Prin. Invest.: R P GANGLOFF, E A STARKE
Tech. Officer: LARC/D L DICUS, LARC/N S DOMACK
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1916 **UNIVERSITY OF VIRGINIA** **9288**
INSTABILITY MECHANISMS OF THERMALLY-DRIVEN INTERFACIAL FLOWS
IN LIGHT-ENCAPSULATED CRYSTAL GROWTH
07/16/1996 - 07/16/2000 FY99: \$114,000 Total: \$287,000
Prin. Invest.: H HAJ-HARIRI *Prin. Invest.:* NONE
Tech. Officer: GRC/T GLASGOW
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1928 UNIVERSITY OF VIRGINIA 9289
HETEROGENEOUS COMB OF POROUS SOLID FUEL PART UNDER MICRO-
GRAV: A COMPREHENSIVE THERO & EXPSTUDIES
 07/23/1996 - 07/24/2000 FY99: \$47,760 Total: \$189,410
Prin. Invest.: H CHELLIAH, F MILLER
Tech. Officer: GRC/H ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1948 UNIVERSITY OF VIRGINIA 9290
 EXTENSIONS TO THE TURBO CODING SCHEME
 08/12/1996 - 07/31/1999 FY99: \$0 Total: \$131,653
Prin. Invest.: D G WILSON, M K HALL
Tech. Officer: GRC/M KIFLE, GRC/M V NGUYEN
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2009 UNIVERSITY OF VIRGINIA 9291
 LOW POWER LOSS MAGNETIC BEARINGS FRO FLYWHEEL AND TURBINE
 ENGINE APPLICATIONS
 02/12/1997 - 05/31/1998 FY99: -\$73 Total: \$49,927
Prin. Invest.: P E ALLAIRE, G T GILLIES
Tech. Officer: GRC/A J PROVENZA, GRC/G V BROWN
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2183 UNIVERSITY OF VIRGINIA 9292
 MEASUREMENT AND ANALYSIS OF POWER LOSSES IN MAGNET IC BEAR-
 INGS: PHASE II
 07/23/1998 - 05/31/1999 FY99: \$0 Total: \$25,000
Prin. Invest.: P E ALLAIRE
Tech. Officer: GRC/A J PROVENZA
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2199 UNIVERSITY OF VIRGINIA 9293
 ADVANCED CONROL OF FLYWHEELS WITH ACTIVE MAGNETIC BEARINGS
 09/10/1998 - 07/05/1999 FY99: \$10,000 Total: \$15,800
Prin. Invest.: C R KNOSPE
Tech. Officer: GRC/G BROWN
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2252 UNIVERSITY OF VIRGINIA 9294
 INTERNALLY-COOLED FUNCTIONALLY GRADED CYLINDERS INTERNALLY-
 COOLED FUNCTIONALLY GRADED CYLINDERS
 03/31/1999 - 02/29/2000 FY99: \$42,375 Total: \$42,375
Prin. Invest.: M J PINDER A
Tech. Officer: GRC/S M ARNOLD
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 700 UNIVERSITY OF VIRGINIA 9295
 ULTRAVIOLET IMAGING TELESCOPE ASTRONMICAL OBSERVATIONS
 09/01/1985 - 07/14/1998 FY99: \$0 Total: \$898,552
Prin. Invest.: R W O CONNELL
Tech. Officer: GSFC/T P STECHER, GSFC/G R BAKER
CASE Category: 11 - ASTRONOMY

NAG 5 1961 UNIVERSITY OF VIRGINIA 9296
 INTERDISCIPLINARY RESEARCH SCENARIO TESTING OF EOS DIS, VER-
 SION O - SERIES 2
 04/03/1992 - 08/14/1999 FY99: \$0 Total: \$452,009
Prin. Invest.: M GARSTANG, G D EMMITT
Tech. Officer: GSFC/STOCKEY
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2061 UNIVERSITY OF VIRGINIA 9297
 TRMM ATMOSPHERIC BUDGET STUDY
 08/05/1992 - 12/14/1998 FY99: -\$1,747 Total: \$239,637
Prin. Invest.: M GARSTANG
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2295 UNIVERSITY OF VIRGINIA 9298
 MULTIDISCIPLINE INTEGRATIVE MODELS OF FOREST ECOSY STEM
 DYNAMICS FOR THE BOREAL FOREST BIOME
 06/17/1993 - 06/30/1998 FY99: -\$6,153 Total: \$211,936
Prin. Invest.: H H SHUGART
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3056 UNIVERSITY OF VIRGINIA 9299
 DYNAMICS OF MASS TRANSFER IN CLOSE INTERACTING BINARIES
 09/01/1995 - 09/30/1999 FY99: \$0 Total: \$31,500
Prin. Invest.: J M RICHARDS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3057 UNIVERSITY OF VIRGINIA 9300
 DYNAMICS AND EMISSION OF HOT ASTROPHYSICAL PLASMAS
 09/15/1995 - 09/14/1999 FY99: \$0 Total: \$288,000
Prin. Invest.: C L SARAZIN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3058 UNIVERSITY OF VIRGINIA 9301
 NUMERICAL MHD STUDIES OF ACCRETION DISKS
 09/25/1995 - 09/30/1999 FY99: \$0 Total: \$180,000
Prin. Invest.: J F HAWLEY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3112 UNIVERSITY OF VIRGINIA 9302
 REMOTE SENSING AND MODELING OF THE CANOPY STRUC- TURE OF
 DECIDUOUS FORESTS
 10/26/1995 - 10/31/1997 FY99: -\$1,619 Total: \$22,381
Prin. Invest.: H H SHUGART, JR.
Tech. Officer: GSFC/D J HARDING
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3428 UNIVERSITY OF VIRGINIA 9303
 A LOCAL PERSPECTIVE ON GALAXY EVOLUTION IN THE EARTH
 09/19/1996 - 04/30/1998 FY99: \$0 Total: \$201,900
Prin. Invest.: R W O'CONNELL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3633 UNIVERSITY OF VIRGINIA 9304
 CHARGED PARTICLE INDUCED ALTERATIONS OF SURFACES I
 03/13/1997 - 01/31/2000 FY99: \$39,000 Total: \$107,955
Prin. Invest.: R E JOHNSON
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3931 UNIVERSITY OF VIRGINIA 9305
 EROSIONAL PROCESSES ON MARS
 03/12/1997 - 02/28/2000 FY99: \$60,100 Total: \$176,763
Prin. Invest.: A D HOWARD
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3973 UNIVERSITY OF VIRGINIA 9306
 ADVANCED COMPUTATIONAL METHODS FOR THE NUMERICAL S METEO-
 ROLOGICAL FLOW PROBLEMS
 03/03/1997 - 01/31/2000 FY99: \$92,000 Total: \$291,830
Prin. Invest.: J J DORNING
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4192 UNIVERSITY OF VIRGINIA 9307
 ION COLLISION PROCESSES: PLASMA INTERACTIONS WITH AN NEUTRAL
 CORONA
 04/10/1997 - 03/31/2000 FY99: \$81,207 Total: \$246,026
Prin. Invest.: D E JOHNSON
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4283 UNIVERSITY OF VIRGINIA 9308
 EROSION AND ALTERATION OF INTERSTELLAR AND INTERPL
 04/07/1997 - 05/31/2000 FY99: \$34,700 Total: \$110,700
Prin. Invest.: D E JOHNSON
Tech. Officer: GSFC/D BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4332 UNIVERSITY OF VIRGINIA 9309
 SUBLIMATION AND OPTICAL PROPERTIES OF ICES AT LOW TO SOLAR
 SYSTEM OBJECTS
 04/30/1997 - 03/31/2001 FY99: \$50,500 Total: \$145,996
Prin. Invest.: D A BARAGIOLA
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4358 UNIVERSITY OF VIRGINIA 9310
 FIRST YEAR OF TECHNICAL PROPOSAL, LAND-COVER/LAND-
 05/02/1997 - 04/14/2000 FY99: \$15,000 Total: \$364,428
Prin. Invest.: C O JUSTICE
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4516 UNIVERSITY OF VIRGINIA 9311
 CLUSTER DARK MATTER DENSITY PROFILES AT VERY LARGE OF CLUSTER
 COOLING FLOWS: SPECTRAL EVIDENCE FOR C
 08/19/1997 - 08/31/1999 FY99: \$0 Total: \$48,300
Prin. Invest.: C L SARAZIN
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 4600 UNIVERSITY OF VIRGINIA 9312
 MAGNETOHYDRODYNAMICS OF THE SOLAR NEBULA
 05/14/1997 - 05/31/1999 FY99: \$362 Total: \$55,964
Prin. Invest.: S A BALBUS
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4651 UNIVERSITY OF VIRGINIA 9313
 ALTERATIONS OF PLANETARY MATERIALS BY PHOTON AND P
 06/27/1997 - 05/31/1999 FY99: \$0 Total: \$55,000
Prin. Invest.: D BARAGIOLA
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4750 UNIVERSITY OF VIRGINIA 9314
 REDESIGN OF SWAS SUBHARMONIC MIXERS USING PLANAR S
 06/17/1997 - 11/30/1998 FY99: \$0 Total: \$38,000
Prin. Invest.: J HESLER
Tech. Officer: GSFC/G CHIN
CASE Category: 11 - ASTRONOMY

NAG 5 4779 UNIVERSITY OF VIRGINIA 9315
 AQUARIUS
 06/18/1997 - 05/31/2000 FY99: \$144,439 Total: \$580,073
Prin. Invest.: M GARSTANG
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6043 UNIVERSITY OF VIRGINIA 9316
 EFFECTS OF THE DEVELOPMENT OF THE BAIKAL-AMUR MAIN PATTERNS
 OF BOREAL FOREST COVER AND CARBON FLUXES
 07/23/1997 - 07/31/1999 FY99: \$0 Total: \$139,113
Prin. Invest.: H SHUGART
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6084 UNIVERSITY OF VIRGINIA 9317
 SUPERCONDUCTOR AND SEMICONDUCTOR RESEARCH FOR NASA WAVE-
 LENGTH MISSIONS
 08/08/1997 - 03/31/2000 FY99: \$193,000 Total: \$426,000
Prin. Invest.: D W CROWE, NONE
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 6279 UNIVERSITY OF VIRGINIA 9318
 GLOBAL VEGETATION DYNAMICS
 09/12/1997 - 08/31/2000 FY99: \$26,844 Total: \$178,733
Prin. Invest.: H H SHUGART
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6351 UNIVERSITY OF VIRGINIA 9319
 VEMAP PHASE II
 09/12/1997 - 05/31/2000 FY99: \$96,320 Total: \$292,215
Prin. Invest.: T SMITH
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6384 UNIVERSITY OF VIRGINIA 9320
 THE COUPLING LAND-USE AND LAND-COVER CHANGES, AND MIOMBO
 WOODLANDS
 09/26/1997 - 10/31/1999 FY99: \$0 Total: \$501,615
Prin. Invest.: P DESANKER
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6403 UNIVERSITY OF VIRGINIA 9321
 CRITICAL TESTS OF STELLAR EVOLUTION (LTSA)
 10/10/1997 - 10/14/1999 FY99: \$77,399 Total: \$151,399
Prin. Invest.: R O'CONNELL
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6507 UNIVERSITY OF VIRGINIA 9322
 THE DEVELOPMENT OF SUBMILLIMETER WAVELENGTH RECEIVERS FOR
 MICROWAVE REMOTE SENSING
 11/04/1997 - 05/31/2000 FY99: \$0 Total: \$356,217
Prin. Invest.: J HESLER
Tech. Officer: GSFC/L HILLIARD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6584 UNIVERSITY OF VIRGINIA 9323
 CARBON CYCLING IN SOUTHERN AFRICAN SAVANNAS
 10/31/1997 - 06/30/1999 FY99: \$0 Total: \$80,143
Prin. Invest.: H SHUGART
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6828 UNIVERSITY OF VIRGINIA 9324
 GAS EVOLUTION FROM ICY SURFACES
 01/15/1998 - 01/14/2000 FY99: \$51,000 Total: \$81,000
Prin. Invest.: R BARAGIOLA
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7033 UNIVERSITY OF VIRGINIA 9325
 EVALUATION OF INCREMENTAL RELEASES OF ECS USER INTERFACES
 AND THE DEVELOPMENT OF HDF/HDF-EOS
 02/19/1998 - 02/14/2000 FY99: \$0 Total: \$113,851
Prin. Invest.: G D EMMITT
Tech. Officer: GSFC/H K RAMPRIYAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7104 UNIVERSITY OF VIRGINIA 9326
 ULTRAVIOLET SPECTRAL DIAGNOSTICS FOR OLD STELLAR POPULATIONS
 03/13/1998 - 03/31/1999 FY99: \$0 Total: \$15,092
Prin. Invest.: B DORMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7168 UNIVERSITY OF VIRGINIA 9327
 ALTERATIONS OF PLANETARY MATERIALS BY PHOTON AND PARTICLE
 IRRADIATION
 03/17/1998 - 05/31/1999 FY99: \$23,333 Total: \$40,000
Prin. Invest.: R A BARAGIOLA
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7266 UNIVERSITY OF VIRGINIA 9328
 SOUTHERN AFRICAN VALIDATION OF EOS GROUND AND AIRBORNE
 INSTRUMENTATION AND VALIDATION ACTIVITIES
 04/30/1998 - 04/30/2000 FY99: \$165,391 Total: \$363,292
Prin. Invest.: R J SWAPP
Tech. Officer: GSFC/J PRIVETT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7417 UNIVERSITY OF VIRGINIA 9329
 CENTRAL AFRICAN REGIONAL PROJECT FOR THE ENVIRONMENT:
 REMOTE SENSING AND GIS SUPPORT ACTIVITIES
 05/22/1998 - 01/31/2000 FY99: \$100,000 Total: \$179,000
Prin. Invest.: C JUSTICE
Tech. Officer: GSFC/C TUCKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7500 UNIVERSITY OF VIRGINIA 9330
 MAGNETOHYDRODYNAMICS OF THE SOLAR NEBULA
 06/01/1998 - 05/31/2001 FY99: \$90,250 Total: \$114,000
Prin. Invest.: S BALBUS
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7625 UNIVERSITY OF VIRGINIA 9331
 REACTION WHEEL JITTER REDUCTION THROUGH ACTIVE CONTROL OF
 MAGNETIC BEARINGS
 08/03/1998 - 09/30/1999 FY99: \$10,654 Total: \$39,447
Prin. Invest.: C KNOSPE
Tech. Officer: GSFC/G BROWN
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 7749 UNIVERSITY OF VIRGINIA 9332
 SPUTTERING OF THE MARTIAN ATMOSPHERE
 11/04/1998 - 12/31/2001 FY99: \$56,697 Total: \$56,697
Prin. Invest.: R E JOHNSON
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7862 UNIVERSITY OF VIRGINIA 9333
 SAFARI 2000: A SOUTHERN AFRICAN REGIONAL SCIENCE INITIATIVE
 01/08/1999 - 01/31/2000 FY99: \$78,182 Total: \$78,182
Prin. Invest.: C O JUSTICE
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7939 UNIVERSITY OF VIRGINIA 9334
 "COLLABORATIVE PARTICIPATION OF SOUTH AFRICAN AIRBORNE VALIDATION
 PLATFORM IN SAFARI 2000"
 01/04/1999 - 01/14/2000 FY99: \$95,139 Total: \$95,139
Prin. Invest.: R J SWAPP
Tech. Officer: GSFC/M KING
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7956 UNIVERSITY OF VIRGINIA 9335
 LAND SURFACE CHARACTERIZATION OF SOUTHERN AFRICAN SAVANNAS:
 CARBON CYCLING AND SENSITIVITY TO E
 01/07/1999 - 01/31/2000 FY99: \$245,076 Total: \$245,076
Prin. Invest.: H H SHUGART
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8088 UNIVERSITY OF VIRGINIA 9336
 SUPERNOVA-INFLUENCED STAR FORMATION
 01/27/1999 - 12/31/1999 FY99: \$45,000 Total: \$45,000
Prin. Invest.: D A CHEVALIER
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8130 UNIVERSITY OF VIRGINIA 9337
 MODELS OF PULSAR NEBULAE (ATP 98)
 02/11/1999 - 02/14/2000 FY99: \$60,000 Total: \$60,000
Prin. Invest.: R A CHEVALIER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8162 UNIVERSITY OF VIRGINIA 9338
 LAND COVER AND LAND USE CHANGE PROJECT SCIENTIST S SUPPORT
 02/08/1999 - 02/28/2000 FY99: \$284,550 Total: \$284,550
Prin. Invest.: C O JUSTICE
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8232 UNIVERSITY OF VIRGINIA 9339
 SUPERNOVA REMNANTS: INTERSTELLAR AND CIRCUMSTELLAR INTER-
 ACTIONS (ATP98)
 02/11/1999 - 02/14/2000 FY99: \$60,000 Total: \$60,000
Prin. Invest.: R A CHEVALIER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8390 UNIVERSITY OF VIRGINIA 9340
 COOLING GAS, COLD GAS, & THE DYNAMICAL HISTORY OF CLUSTERS OF
 GALAXIES (ADP98)
 03/05/1999 - 03/14/2000 FY99: \$19,927 Total: \$19,927
Prin. Invest.: C L SARAZIN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8444 UNIVERSITY OF VIRGINIA 9341
 LABORATORY SIMULATIONS OF RADIATION EFFECTS ON PLA NETARY
 SURFACES
 04/07/1999 - 05/31/2000 FY99: \$55,000 Total: \$55,000
Prin. Invest.: R A BARAGIOLA
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 8585 UNIVERSITY OF VIRGINIA 9342
 EXTENDING THE VOCABULARY FOR CROSS-DISCIPLINARY SEARCHING
 OF EOS DATA
 06/24/1999 - 06/30/2000 FY99: \$75,000 Total: \$75,000
Prin. Invest.: J C FRENCH
Tech. Officer: GSFC/K MOE
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 8612 UNIVERSITY OF VIRGINIA 9343
 TOWARD REAL-TIME ANALYSIS OF TERRESTRIAL CARBON CYCLING
 06/11/1999 - 01/31/2000 FY99: \$66,000 Total: \$66,000
Prin. Invest.: W R EMANUEL
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8663 UNIVERSITY OF VIRGINIA 9344
 LOW COST TERAHERTZ FREQUENCY MULTIPLIERS FOR SOFIA AND
 EXPLORER MISSIONS
 07/07/1999 - 07/14/2000 FY99: \$132,335 Total: \$132,335
Prin. Invest.: T CROWE
Tech. Officer: GSFC/G MUCKLOW
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 8670 UNIVERSITY OF VIRGINIA 9345
 ESTIMATING ROOT ZONE SOIL MOISTURE AND EXPLORING SCALE
 ASPECTS OF ITS COUPLING TO THE ATMOSPHERIC
 07/08/1999 - 07/14/2000 FY99: \$111,458 Total: \$111,458
Prin. Invest.: J D ALBERTSON
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8749 UNIVERSITY OF VIRGINIA 9346
 TO DEVELOPE A COMPACT, AMBIENT TEMPERATURE 500 GHZ RECEIVER
 FOR USE IN PASSIVE MICROWAVE REMOTE SEN
 08/25/1999 - 03/31/2001 FY99: \$97,000 Total: \$97,000
Prin. Invest.: J L HESLER
Tech. Officer: GSFC/J R WANG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8838 UNIVERSITY OF VIRGINIA 9347
 CENTRAL AFRICAN REGIONAL PROJECT FOR THE ENVIRON MENT:
 REMOTE SENSING AND GIS SUPPORT ACTIVITIES
 09/23/1999 - 09/30/2000 FY99: \$158,271 Total: \$158,271
Prin. Invest.: C O JUSTICE
Tech. Officer: GSFC/C J TUCKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1567 UNIVERSITY OF VIRGINIA 9348
 MEMBRANE PROTEIN CRYSTALLIZATION SCREENS BASED UPON FUNDA-
 MENTAL PHENOMENOLOGY OF SOLUTIONS
 12/22/1998 - 11/30/2002 FY99: \$175,000 Total: \$175,000
Prin. Invest.: M C WIENER
Tech. Officer: MSFC/B GUYNES
CASE Category: 13 - PHYSICS

NAG 9 823 UNIVERSITY OF VIRGINIA 9349
 MICROGRAVITY SIMULATED PROSTATE CELL CULTURE
 09/22/1995 - 09/24/1999 FY99: \$202,000 Total: \$743,846
Prin. Invest.: L K CHUNG, H E ZHAY, PH.D.
Tech. Officer: JSC/N PELLIS
CASE Category: 56 - MEDICL

NAS 1 20301 UNIVERSITY OF VIRGINIA 9350
 MATLS SCIENCE, HIGH PERF NUMERICAL PROCESS'G & NUM AEROSC'S,
 AEROSP. ENGRG AND OP ANAL & RESEARCH
 03/30/1995 - 03/30/1998 FY99: -\$1,478 Total: \$89,298
Prin. Invest.: G L CAHEN, JR. *Prin. Invest.:* NONE
Tech. Officer: LARC/C V ECKSTROM
CASE Category: 41 - AERONAUTICAL ENGR

NAS 1 99098 UNIVERSITY OF VIRGINIA 9351
 ANALYTICAL AERONAUTICAL SAFETY SOFTWARE TOOL
 03/26/1999 - 11/25/2001 FY99: \$230,000 Total: \$230,000
Prin. Invest.: J BECHTA-DUGAN, K J SULLIZAN
Tech. Officer: LARC/H A ROELANT, LAPC/D J PORTER, JR.
CASE Category: 49 - ENGINEERING, OTHER

NAS 3 97190 UNIVERSITY OF VIRGINIA 9352
 HOTFGM CYLINDER A COUPLED MICRO MACROSTRUCTURAL TH EORY
 10/29/1997 - 10/31/1999 FY99: \$79,908 Total: \$157,629
Prin. Invest.: M PINDERG, J ABOUDI
Tech. Officer: GRC/S ARNOLD
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 237 UNIVERSITY OF VIRGINIA 9353
 NASA-VIRGINIA CONSORTIUM OF ENGINEERING & SCIENCE UNIVERSITIES
 PH.D RESEARCH ASSISTANTSHIP PROGRAM
 07/16/1996 - 07/31/2000 FY99: \$99,847 Total: \$441,670
Prin. Invest.: D CHESTNUTT
Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 263 UNIVERSITY OF VIRGINIA 9354
 CENTER FOR ADVANCED COMPUTATIONAL TECHNOLOGY MY 1/3
 08/20/1997 - 09/30/1999 FY99: \$500,000 Total: \$1,075,001
Prin. Invest.: A K NOORE
Tech. Officer: LARC/J MALONE
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 312 UNIVERSITY OF VIRGINIA 9355
 ANALYSIS OF CORRODENTS WITHIN TI-HONEYCOMB/PETI-5 FACESHEET
 STRUCTURES
 07/24/1998 - 03/31/1999 FY99: \$0 Total: \$30,000
Prin. Invest.: R G KELLY
Tech. Officer: LARC/R S PIASCIK
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 1 340 UNIVERSITY OF VIRGINIA 9356
 TUNABLE ACOUSTIC LINER INVESTIGATIONS
 04/30/1999 - 04/30/2000 FY99: \$27,055 Total: \$27,055
Prin. Invest.: H G WOOD, 111
Tech. Officer: LARC/J W POSEY
CASE Category: 46 - MECHANICAL ENGR

NCC 1 342 UNIVERSITY OF VIRGINIA 9357
 ROBUST ADAPTIVE CONTROL IN THE PRESENCE OF UNCERTAINTIES AND
 FAILURES
 06/08/1999 - 05/31/2000 FY99: \$27,000 Total: \$27,000
Prin. Invest.: G TAO
Tech. Officer: LARC/S M JOSHI, LARC/C M BELCASTRO
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 925 UNIVERSITY OF VIRGINIA 9358
 PERCEPTION BASED TECHNIQUES FOR IMPROVING COMPUTER -GENER-
 ATED IMAGERY
 08/25/1995 - 03/31/1999 FY99: \$0 Total: \$259,524
Prin. Invest.: D R PROFFITT, R PAUSCH
Tech. Officer: ARC/M K KAISER
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 1093 UNIVERSITY OF VIRGINIA 9359
 WHEN ARE THE IMMERSIVE DISPLAYS USEFUL: PERCEPTUAL & TASK CON-
 siderations?
 03/09/1999 - 02/29/2000 FY99: \$125,000 Total: \$125,000
Prin. Invest.: D R PROFFITT
Tech. Officer: ARC/M K KAISER
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 3 642 UNIVERSITY OF VIRGINIA 9360
 SATELLITE TELEMOMOGRAPHY NETWORK EXPERIMENT RESEA RCH
 PROJECT
 08/24/1998 - 05/16/1999 FY99: \$0 Total: \$7,186
Prin. Invest.: S J
Tech. Officer: GRC/R J KERCCZEWSKI
CASE Category: 45 - ELECTRICAL ENGR

NCC 5 79 UNIVERSITY OF VIRGINIA 9361
 MICROGRAVITY NUCLEATION AND PARTICLE COAGULATION EXPERIMENT
 SUPPORT
 10/06/1994 - 06/30/1999 FY99: -\$788 Total: \$90,238
Prin. Invest.: L U LILLEHT
Tech. Officer: GSFC/J A NUTH, GSFC/J E ALLEN
CASE Category: 11 - ASTRONOMY

NCC 8 171 UNIVERSITY OF VIRGINIA 9362
 MODELING PROSTATE CANCER SKELETAL METASTASIS AND GENE THER-
 APY
 03/01/1999 - 11/30/2002 FY99: \$123,000 Total: \$123,000
Prin. Invest.: L W CHUNG
Tech. Officer: MSFC/B GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 1 52100 UNIVERSITY OF VIRGINIA 9363
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 06/13/1995 - 08/31/1998 FY99: -\$675 Total: \$65,325
Prin. Invest.: B L FARMER, J A YOUNG
Tech. Officer: LARC/J A HINKLEY, LARC/T S GATES
CASE Category: 12 - CHEMISTRY

NGT 1 52110 UNIVERSITY OF VIRGINIA 9364
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 06/26/1995 - 09/30/1998 FY99: \$1 Total: \$66,001
Prin. Invest.: E A THORNTON
Tech. Officer: LARC/M D RHODES
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 1 52117 UNIVERSITY OF VIRGINIA 9365
 GRADUATE STUDENT RESEARCHER PROGRAM
 06/27/1995 - 08/10/1998 FY99: -\$1 Total: \$65,999
Prin. Invest.: L P TROEGER
Tech. Officer: LARC/T T BALES
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 1 52187 UNIVERSITY OF VIRGINIA 9366
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/04/1998 - 08/14/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: C T HEROKOVICH
Tech. Officer: LARC/J H STORRIES
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 1 52212 UNIVERSITY OF VIRGINIA 9367
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/28/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: D A STAACK, J C MCDANREL
Tech. Officer: LARC/C E GLASS, LARC/C G MILLER
CASE Category: 13 - PHYSICS

NGT 2 52203 UNIVERSITY OF VIRGINIA 9368
 EFFECTS OF CABIN UPSETS ON ABSORPTION COLUMNS FOR AIR
 REVITALIZATION: MODELING & EXPERIMENTS
 09/14/1995 - 08/31/1998 FY99: -\$4,690 Total: \$61,310
Prin. Invest.: M D LEVAN, W S APPE
Tech. Officer: ARC/J E FINN
CASE Category: 43 - CHEMICAL ENGR

NGT 3 52315 UNIVERSITY OF VIRGINIA 9369
 GRADUATE STUDENT RESEARCHERS PROGRAM
 08/01/1996 - 06/30/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: J M HOWE
Tech. Officer: GRC/D MONTEGANI
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 5 50062 UNIVERSITY OF VIRGINIA 9370
 APPROACHES FOR IMPROVING ACCESS TO NASA'S SCIENTIF
 08/04/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: J FRENCH
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50118 UNIVERSITY OF VIRGINIA 9371
 FABRICATION OF PLANARGAAS SCHOTTKY MIXER DIODES FO S
 09/06/1997 - 06/30/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: T W CROWE
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT10 52620 UNIVERSITY OF VIRGINIA 9372
 TRAINING GRANT UNDER A GRADUATE STUDENT RESEARCHER'S PRO-
 GRAM
 06/22/1999 - 07/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: A MILLS
Tech. Officer: KSC/R WHEELER
CASE Category: 55 - AGRICULTURE

NAG 1 537 VA POLYTECHNIC INST & ST UNIV 9373
 POSTBUCKLING & CRIPPLING OF GRAPHITE-EPOXY CHANNEL & ZEESEC-
 TION COLUMNS
 10/31/1984 - 12/31/1997 FY99: -\$14,247 Total: \$543,264
Prin. Invest.: E R JOHNSON
Tech. Officer: LARC/J H STARNES, JR
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 643 VA POLYTECHNIC INST & ST UNIV 9374
 DESIGN OF ANISOTROPIC PLATES FOR IMPROVED DAMAGE TOLERANCE
 02/12/1986 - 05/30/1998 FY99: -\$2 Total: \$588,456
Prin. Invest.: Z GURDAL
Tech. Officer: LARC/J H STARNES, LARC/M J SHUART
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1449 VA POLYTECHNIC INST & ST UNIV 9375
 AIRPLANE CONTROL ALLOCATION STUDY - NLPN 92-435
 08/07/1992 - 08/06/1998 FY99: -\$1 Total: \$422,905
Prin. Invest.: W C DURHAM
Tech. Officer: LARC/J V FOSTER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1562 VA POLYTECHNIC INST & ST UNIV 9376
 VARIABLE-COMPLEXITY MULTIDISCIPLINARY OPTIMIZATION ON PARALLEL
 COMPUTERS
 12/07/1993 - 12/31/1997 FY99: -\$5,704 Total: \$593,818
Prin. Invest.: B GROSSMAN, R T HAFTKA, W H MASON
Tech. Officer: LARC/P A NEWMAN, LARC/P G COEM
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1657 VA POLYTECHNIC INST & ST UNIV 9377
 12 INCH ACOUSTIC FAN RESEARCH
 12/07/1994 - 05/20/1998 FY99: -\$11,085 Total: \$265,787
Prin. Invest.: R H THOMAS
Tech. Officer: LARC/C H GERHOLD
CASE Category: 46 - MECHANICAL ENGR

NAG 1 1681 VA POLYTECHNIC INST & ST UNIV 9378
 STRUCTURAL ACOUSTIC CHARACTERISTICS OF AIRCRAFT AND ACTIVE
 CONTROL FOR INTERIOR NOISE REDUCTION
 01/23/1995 - 05/22/1998 FY99: -\$2,646 Total: \$615,491
Prin. Invest.: C R FULLER
Tech. Officer: LARC/H C LESTER, LARC/R J SILOX
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1682 VA POLYTECHNIC INST & ST UNIV 9379
 THE EVOLUTION OF AN ACOUSTIC DISTURBANCE UP TO TRANSITION IN
 THE BOUNDARY LAYER ON AN AIRFOIL
 01/13/1995 - 02/15/1999 FY99: -\$69 Total: \$119,598
Prin. Invest.: J A SCHETZ
Tech. Officer: LARC/R WLEZIEN, LARC/A KUMAR
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1683 VA POLYTECHNIC INST & ST UNIV 9380
 DIAGNOSTICS AND ACTIVE CONTROL OF AIRCRAFT NOISE
 01/12/1995 - 05/15/1998 FY99: -\$168 Total: \$334,458
Prin. Invest.: C R FULLER
Tech. Officer: LARC/K H LYLE, LARC/R J SILOX
CASE Category: 46 - MECHANICAL ENGR

NAG 1 1689 VA POLYTECHNIC INST & ST UNIV 9381
 NON-LINEAR MODELING AND STABILITY ANALYSES OF ANISOTROPIC
 SANDWICH PANELS EXPOSED TO COMPLEX
 02/06/1995 - 10/14/1998 FY99: \$1,920 Total: \$113,583
Prin. Invest.: L LIBRESCU
Tech. Officer: LARC/C J CAMARDA, LARC/M L BLOSSER
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 1 1737 VA POLYTECHNIC INST & ST UNIV 9382
 DYNAMIC WIND TUNNEL TESTS MY 1/3
 07/13/1995 - 09/30/1999 FY99: \$0 Total: \$445,962
Prin. Invest.: F H LUTZE
Tech. Officer: LARC/S B GRAFTON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1801 VA POLYTECHNIC INST & ST UNIV 9383
 TURBULENCE MEASUREMENTS AND COMPUTATIONS FOR THE PREDIC-
 TION OF BROADBAND NOISE IN HIGH BYPASS
 01/30/1996 - 01/31/2000 FY99: \$0 Total: \$337,817
Prin. Invest.: W J DEVENPORT, J MOORE
Tech. Officer: LARC/J W POSER, LARC/C H GERHOLD
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1851 VA POLYTECHNIC INST & ST UNIV 9384
 AIRCRAFT NONLINEAR DYNAMICS STUDIES
 06/26/1996 - 08/15/2000 FY99: \$77,607 Total: \$229,642
Prin. Invest.: F H LUTZE, W H MASON
Tech. Officer: LARC/J V FOSTER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1852 VA POLYTECHNIC INST & ST UNIV 9385
 MULTIDISCIPLINARY DESIGN INVESTIGATION OF TRUSS-BRACED AIR-
 CRAFT
 06/27/1996 - 09/15/1999 FY99: \$0 Total: \$300,001
Prin. Invest.: B GROSSMAN, R K KAPANIA, W H MASON
Tech. Officer: LARC/S C ASBURY, LARC/B L BARRIER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1881 **VA POLYTECHNIC INST & ST UNIV** **9386**
 RESIN FILM INFUSION (RFI) PROCESS MODELING FOR LARGE TRANSPORT
 AIRCRAFT WING STRUCTURES
 11/22/1996 - 12/24/1999 FY99: \$125,001 Total: \$437,188
Prin. Invest.: A C LOOS
Tech. Officer: LARC/H B DEXTTER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1884 **VA POLYTECHNIC INST & ST UNIV** **9387**
 EFFICIENT ANALYSIS OF COMPLEX STRUCTURES USING NEURAL NET-
 WORKS
 12/17/1996 - 09/30/1999 FY99: \$26,629 Total: \$102,573
Prin. Invest.: R K KAPANIA
Tech. Officer: LARC/J T WANG
CASE Category: 46 - MECHANICAL ENGR

NAG 1 1895 **VA POLYTECHNIC INST & ST UNIV** **9388**
 THE NASA-VIRGINIA TECH COMPOSITE PROGRAM: INVESTIGATION OF
 COMPOSITE STRUCTURES
 01/29/1997 - 12/31/1999 FY99: \$85,479 Total: \$202,273
Prin. Invest.: M W HYER
Tech. Officer: LARC/J H STAMES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1912 **VA POLYTECHNIC INST & ST UNIV** **9389**
 MICROCRACKING OF MATERIALS FOR SPACE
 04/01/1997 - 05/15/1998 FY99: -\$28 Total: \$12,158
Prin. Invest.: M HYES
Tech. Officer: LARC/H G MAAHS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1942 **VA POLYTECHNIC INST & ST UNIV** **9390**
 TURBULENCE IN HELICOPTER ROTOR FLOWS AND THE MECHANISM OF
 NOISE PRODUCTION
 06/04/1997 - 06/03/2000 FY99: \$102,014 Total: \$257,432
Prin. Invest.: W J DEVENPORT
Tech. Officer: LARC/C L BURLEY, LARC/T F BROOKS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1958 **VA POLYTECHNIC INST & ST UNIV** **9391**
 IMPROVED CERES TOP-OF-THE-ATMOSPHERE, AND SURFACE RADIATIVE
 FLUXES
 08/05/1997 - 09/30/1998 FY99: -\$5,149 Total: \$77,602
Prin. Invest.: J R MAHAN, P W STACKHOUSE, M A HAEFFELIN
Tech. Officer: LARC/B A WIELICKI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1959 **VA POLYTECHNIC INST & ST UNIV** **9392**
 EARTH RADIATION MEASUREMENT SCIENCE MY 1/3
 08/05/1997 - 08/15/2000 FY99: \$115,204 Total: \$237,034
Prin. Invest.: G L SMITH, J R MAHAN
Tech. Officer: LARC/R B LEE, III, LARC/R L HUFFMAN, JR.
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1970 **VA POLYTECHNIC INST & ST UNIV** **9393**
 CERES VALIDATION USING CERES ERBE-LIKE AND CERES TISA DATA
 09/12/1997 - 09/30/1998 FY99: -\$3,114 Total: \$58,119
Prin. Invest.: J R MAHON
Tech. Officer: LARC/D F YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1973 **VA POLYTECHNIC INST & ST UNIV** **9394**
 FORMATION OF IRON NANOPHASES IN POLYMERIC MATRICES VIA SUPER-
 CRITICAL INFUSION
 10/20/1997 - 04/30/1999 FY99: \$2 Total: \$40,002
Prin. Invest.: L T TAYLOR
Tech. Officer: LARC/D M STOAKLEY, LARC/A K ST. CLAIR
CASE Category: 12 - CHEMISTRY

NAG 1 1980 **VA POLYTECHNIC INST & ST UNIV** **9395**
 HERSCHEL-QUINCKE TUBE CONCEPT APPLIED TO THE REDUCTION OF
 ENGINE INLET NOISE
 12/19/1997 - 12/18/1998 FY99: \$0 Total: \$50,616
Prin. Invest.: R A BURDISO
Tech. Officer: LARC/C H GERHOLD, LARC/J W POSEY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1998 **VA POLYTECHNIC INST & ST UNIV** **9396**
 PRINCIPLES OF PIEZOCERAMIC DEVICES MY 1/2
 02/01/1998 - 01/31/2000 FY99: \$42,001 Total: \$84,001
Prin. Invest.: D J INMAN
Tech. Officer: LARC/P H MIRICK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2001 **VA POLYTECHNIC INST & ST UNIV** **9397**
 ACTIVE CONTROL OF NOISE FROM TURBOFAN ENGINES USING WAVE-
 NUMBER AND FAR-FIELD SENSORS.
 01/29/1998 - 02/01/1999 FY99: \$0 Total: \$155,276
Prin. Invest.: R A BURDISO, C R FULLER
Tech. Officer: LARC/C H GERHOLD, LARC/J W POSEY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2035 **VA POLYTECHNIC INST & ST UNIV** **9398**
 COMPRESSION STRENGTH OF COMPOSITE PRIMARY STRUCTURAL COM-
 PONENTS
 04/30/1998 - 01/31/2000 FY99: \$71,203 Total: \$134,403
Prin. Invest.: E R JOHNSON
Tech. Officer: LARC/J H STARNES, LARC/L E JONES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2053 **VA POLYTECHNIC INST & ST UNIV** **9399**
 HUMAN POWERED SUBMARINE PROJECT SUPPORT
 04/10/1998 - 02/15/1999 FY99: -\$14 Total: \$1,986
Prin. Invest.: L L NEU
Tech. Officer: LARC/G L EARLEY
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 2094 **VA POLYTECHNIC INST & ST UNIV** **9400**
 INVESTIGATION OF NEXT-GENERATION EARTH RADIATION BUDGET
 RADIOMETRY
 07/24/1998 - 10/31/1998 FY99: \$0 Total: \$47,903
Prin. Invest.: J R MAHAN
Tech. Officer: LARC/R B LEE, III, LARC/R L HUFFMAN, JR.
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2106 **VA POLYTECHNIC INST & ST UNIV** **9401**
 EVALUATION AND IMPROVEMENT OF EARTH RADIATION BUDGET DATA
 SETS
 09/17/1998 - 09/30/2001 FY99: \$201,185 Total: \$214,185
Prin. Invest.: M P HAEFFELIN
Tech. Officer: LARC/D F YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2111 VA POLYTECHNIC INST & ST UNIV 9402
 AIRPLANE CONTROL ALLOCATION STUDY
 09/16/1998 – 12/21/1999 FY99: \$1 Total: \$99,501
Prin. Invest.: W C DURHAM
Tech. Officer: LARC/J V FOSTER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2116 VA POLYTECHNIC INST & ST UNIV 9403
 STACKING SEQUENCE DESIGN OPTIMIZATION OF STIFFENED PANELS WITH POSTBUCKLING CONSTRAINTS
 10/28/1998 – 02/28/1999 FY99: \$16,388 Total: \$16,388
Prin. Invest.: Z GURDAL, S A RAGON
Tech. Officer: LARC/J H STARNES, JR.
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2128 VA POLYTECHNIC INST & ST UNIV 9404
 INVESTIGATION OF NOVEL SPACE BORNE BROADBAND RADIO METER CONCEPTS
 01/07/1999 – 10/31/2001 FY99: \$93,338 Total: \$93,338
Prin. Invest.: J R MAHAN, NONE
Tech. Officer: LARC/R B LEE, ARC/R L HUFFMAN, JR.
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 2137 VA POLYTECHNIC INST & ST UNIV 9405
 CONTROL OF FAN NOISE FROM TURBOFAN ENGINES USING ADAPTIVE HERSCHEL-QUINCKE TUBES, NRA 98-LARC-3
 01/28/1999 – 12/31/2001 FY99: \$108,736 Total: \$108,736
Prin. Invest.: R A BURDISO
Tech. Officer: LARC/C H GERHOLD, LARC/J W POSEY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2158 VA POLYTECHNIC INST & ST UNIV 9406
 HYBRID ACTIVE-PASSIVE SYSTEMS FOR CONTROL OF AIRCRAFT INTERIOR NOISE
 03/09/1999 – 12/31/2001 FY99: \$124,000 Total: \$124,000
Prin. Invest.: C R FULLER
Tech. Officer: LARC/D L PALUMBO
CASE Category: 46 – MECHANICAL ENGR

NAG 1 2190 VA POLYTECHNIC INST & ST UNIV 9407
 EFFICIENT HYBRID ACTUATION USING SOLID-STATE ACTUATORS
 07/06/1999 – 04/30/2002 FY99: \$314,423 Total: \$314,423
Prin. Invest.: D J LEO, H H CUDNEY
Tech. Officer: LARC/G C HORNER, LARC/R G REMUS
CASE Category: 46 – MECHANICAL ENGR

NAG 1 2217 VA POLYTECHNIC INST & ST UNIV 9408
 MULTIDISCIPLINARY DESIGN INVESTIGATION OF TRUSS-BRACED WING AIRCRAFT: PHASE 4 (FOLLOW-ON TO 1852)
 08/18/1999 – 10/31/1999 FY99: \$50,085 Total: \$50,085
Prin. Invest.: B GROSSMAN
Tech. Officer: LARC/M D MOORE, LARC/R E MCKINLEY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2246 VA POLYTECHNIC INST & ST UNIV 9409
 CONTROL LAW — CONTROL ALLOCATION INTERACTION
 09/17/1999 – 05/31/2000 FY99: \$15,000 Total: \$15,000
Prin. Invest.: W C DURHAM
Tech. Officer: LARC/J B DAVIDSON
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1180 VA POLYTECHNIC INST & ST UNIV 9410
 DESIGN SPACE EXPLORATION FOR MDO ON A TERAFLOP COMPUTER
 02/26/1998 – 01/31/2000 FY99: \$34,262 Total: \$67,471
Prin. Invest.: B GROSSMAN, L T WATSON, W H MASON
Tech. Officer: ARC/G H KLOPETER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1292 VA POLYTECHNIC INST & ST UNIV 9411
 NON-PARAMETRIC METHODS FOR AUTOMATED FLIGHT DATA CLASSIFICATION
 02/12/1999 – 09/30/1999 FY99: \$75,049 Total: \$75,049
Prin. Invest.: M R ANDERSON
Tech. Officer: ARC/J C STALER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2061 VA POLYTECHNIC INST & ST UNIV 9412
 AEROACOUSTICS OF SUPERSONIC INLETS
 08/11/1997 – 12/31/1998 FY99: \$0 Total: \$150,000
Prin. Invest.: W F NG
Tech. Officer: GRC/R P WOODWARD
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2093 VA POLYTECHNIC INST & ST UNIV 9413
 AN INTEGRATED SYSTEMS APPROACH TOWARDS ACTIVE CONTROL OF THERMO-ACOUSTIC INSTABILITIES
 12/15/1997 – 10/31/2000 FY99: \$97,513 Total: \$193,257
Prin. Invest.: U VANDSBURGER, W R SAUNDERS, B GANESHAN
Tech. Officer: GRC/J E MAY
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 2098 VA POLYTECHNIC INST & ST UNIV 9414
 ACTIVE & PASSIVE BLADE VIBRATION CONTROL USING MEMS
 12/22/1997 – 11/30/2000 FY99: \$97,373 Total: \$192,942
Prin. Invest.: W NG
Tech. Officer: GRC/O MEHMED, GRC/G L STEFKO
CASE Category: 46 – MECHANICAL ENGR

NAG 3 2100 VA POLYTECHNIC INST & ST UNIV 9415
 DURABILITY OF CERAMIC MATRIX COMPOSITES AT HIGH TEMPERATURES: EXPERIMENTAL STUDIES & PRODUCTIVE MO
 01/06/1998 – 11/20/2000 FY99: \$48,009 Total: \$111,998
Prin. Invest.: W A CURTIN
Tech. Officer: GRC/M H JASKOWIAK
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 3 2184 VA POLYTECHNIC INST & ST UNIV 9416
 INVESTIGATION FOR IMPROVED DYNAMIC STAGE CHARACTERISTICS
 08/03/1998 – 12/01/1999 FY99: \$0 Total: \$49,500
Prin. Invest.: W F O'BRIEN
Tech. Officer: GRC/A OWEN
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2191 VA POLYTECHNIC INST & ST UNIV 9417
 TRAILING EDGE BLOWING IN INLET GUIDE VANES TO REDUCE NOISE
 08/14/1998 – 06/22/1999 FY99: \$15,000 Total: \$70,000
Prin. Invest.: W NG
Tech. Officer: GRC/R P WOODWARD
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2194 **VA POLYTECHNIC INST & ST UNIV** **9418**
 AEROACOUSTICS OF SUPERSONIC INLETS AEROACOUSTICS OF SUPER-
 SONIC INLETS
 08/21/1998 - 09/30/1998 FY99: \$43,750 Total: \$75,000
Prin. Invest.: W NG
Tech. Officer: GRC/R P WOODWARD
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 141 **VA POLYTECHNIC INST & ST UNIV** **9419**
 SKIN FRICTION MEASUREMENTS SKIN FRICTION MEASUREMENTS
 11/24/1997 - 09/30/1998 FY99: \$0 Total: \$65,000
Prin. Invest.: J A SCHETZ
Tech. Officer: DFRG/T BUI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 158 **VA POLYTECHNIC INST & ST UNIV** **9420**
 SKIN FRICTION MEASUREMENTS
 12/18/1998 - 09/30/1999 FY99: \$75,000 Total: \$75,000
Prin. Invest.: J A SCHETZ
Tech. Officer: DFRG/T BUI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 5099 **VA POLYTECHNIC INST & ST UNIV** **9421**
 UNDERSTANDING SIGMA NAUGHT BLOOMS AND THEIR EFFECTS ON
 RADAR ALTIMETERS
 12/11/1996 - 11/30/1999 FY99: \$14,000 Total: \$82,000
Prin. Invest.: G E BROWN
Tech. Officer: GSFC/G E KAYNE
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6539 **VA POLYTECHNIC INST & ST UNIV** **9422**
 THE VIRGINIA TECH CENTER FOR ENVIRONMENTAL APPLICATIONS OF
 REMOTESENSING (CEARS)
 10/24/1997 - 07/31/1999 FY99: \$0 Total: \$419,256
Prin. Invest.: R H WYNNE
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7657 **VA POLYTECHNIC INST & ST UNIV** **9423**
 MODELING AND SIMULATION OF FORMATION FLYING
 09/02/1998 - 11/30/1999 FY99: \$48,334 Total: \$85,265
Prin. Invest.: C D HALL
Tech. Officer: GSFC/D C FOLTA
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 8343 **VA POLYTECHNIC INST & ST UNIV** **9424**
 FLUID INCLUSION STUDY OF VOLATILES IN SNC METEORITES
 04/08/1999 - 12/31/1999 FY99: \$42,000 Total: \$42,000
Prin. Invest.: R J BODNAR
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAS 1 99128 **VA POLYTECHNIC INST & ST UNIV** **9425**
 ADVANCED MODELING AND ANALYSIS TECHNIQUES FOR ADVANCED
 BROADBAND DETECTOR DEVELOPMENT
 07/30/1999 - 07/28/2000 FY99: \$39,923 Total: \$39,923
Prin. Invest.: J R MAHAN
Tech. Officer: LARC/E KIST, JR.
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 221 **VA POLYTECHNIC INST & ST UNIV** **9426**
 THERMAL CHARACTERIZATION OF AEROSPACE STRUCTURES
 01/24/1996 - 07/24/1998 FY99: -\$1 Total: \$124,273
Prin. Invest.: E P SCOTT
Tech. Officer: LARC/K J DARYABEIGI
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 243 **VA POLYTECHNIC INST & ST UNIV** **9427**
 ANALYTICAL SUPPORT OF CALIBRATION AND DATA REDUCTION PROTO-
 COLS FOR EARTH RADIATION BUDGET
 08/21/1996 - 04/30/1998 FY99: -\$434 Total: \$312,263
Prin. Invest.: J R MAHAN
Tech. Officer: LARC/R BENJAMIN LEE, III, LARC/R L HUFFMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 245 **VA POLYTECHNIC INST & ST UNIV** **9428**
 AERODYNAMIC INTERACTION EFFECTS OF A HELICOPTER ROTOR AND
 FUSELAGE
 10/30/1996 - 10/31/1999 FY99: \$88,698 Total: \$253,617
Prin. Invest.: R W BARNWELL, D D BOYD, JR.
Tech. Officer: LARC/S A GORTON, LARC/J D BERRY
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 279 **VA POLYTECHNIC INST & ST UNIV** **9429**
 PRACTICAL AERODYNAMIC DESIGN OPTIMIZATION BASED ON NAVIER
 STOKES EQUATIONS & DISCRETE ADJOINT METHOD
 03/05/1998 - 01/31/1999 FY99: -\$2,589 Total: \$27,639
Prin. Invest.: B GROSSMAN
Tech. Officer: LARC/W K ANDERSON
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 282 **VA POLYTECHNIC INST & ST UNIV** **9430**
 HYBRID ACTIVE-PASSIVE SYSTEMS FOR CONTROL OF AIRCRAFT
 INTERIOR NOISE
 03/13/1998 - 01/15/1999 FY99: \$38,412 Total: \$158,412
Prin. Invest.: C R FULLER
Tech. Officer: LARC/D L PALUMBO
CASE Category: 46 - MECHANICAL ENGR

NCC 1 304 **VA POLYTECHNIC INST & ST UNIV** **9431**
 INVESTIGATION OF THE DEFLECTION RESPONSE OF PIEZOCERAMIC
 DEVICES
 06/03/1998 - 09/30/1999 FY99: \$15,819 Total: \$37,819
Prin. Invest.: M W HYER
Tech. Officer: LARC/S A WISE, LARC/W C VAUGHN
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 1 344 **VA POLYTECHNIC INST & ST UNIV** **9432**
 INNOVATIVE LINER CONCEPTS
 06/17/1999 - 03/31/2000 FY99: \$63,722 Total: \$63,722
Prin. Invest.: R H THOMAS
Tech. Officer: LARC/T L PARROTT, LARC/M G JONES
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 346 **VA POLYTECHNIC INST & ST UNIV** **9433**
 A UNIFIED PROGRAM FOR THE FLIGHT DYNAMICS AND AERO SERVOELAS-
 TICITY OF WHOLE AIRCRAFT
 06/17/1999 - 06/15/2002 FY99: \$40,000 Total: \$40,000
Prin. Invest.: L MEIROVITCH
Tech. Officer: LARC/M R WAZAK
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52107 **VA POLYTECHNIC INST & ST UNIV** **9434**
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 06/15/1995 – 12/31/1999 FY99: \$12,000 Total: \$88,001
Prin. Invest.: J L BURT, A M PRESTRUDE
Tech. Officer: LARC/A T POPE, LARC/J R COMSTOCK, JR.
CASE Category: 69 – PSYCHOLOGY, OTHER

NGT 1 52112 **VA POLYTECHNIC INST & ST UNIV** **9435**
 GRADUATE STUDENT RESEARCHER PROGRAM
 06/19/1995 – 06/30/2000 FY99: \$22,000 Total: \$98,000
Prin. Invest.: M W HYER
Tech. Officer: LARC/J H STARNES, JR.
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52145 **VA POLYTECHNIC INST & ST UNIV** **9436**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 07/11/1996 – 08/14/1999 FY99: \$0 Total: \$66,001
Prin. Invest.: D M MOORE, PH.D.
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52155 **VA POLYTECHNIC INST & ST UNIV** **9437**
 NASA MDA FELLOWSHIP PROGRAM MDA FELLOWSHIP PROGRAM
 01/24/1997 – 05/15/1999 FY99: \$0 Total: \$380,930
Prin. Invest.: B GROSSMAN
Tech. Officer: LARC/J BARTHELEMY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52174 **VA POLYTECHNIC INST & ST UNIV** **9438**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/29/1997 – 06/30/2000 FY99: \$22,000 Total: \$54,000
Prin. Invest.: J A NEWMAN
Tech. Officer: LARC/R S PIASCLK
CASE Category: 49 – ENGINEERING, OTHER

NGT 1 52184 **VA POLYTECHNIC INST & ST UNIV** **9439**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/12/1998 – 06/30/2000 FY99: \$22,000 Total: \$32,000
Prin. Invest.: J BURTON
Tech. Officer: LARC/J M SEATON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 1 52202 **VA POLYTECHNIC INST & ST UNIV** **9440**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/01/1998 – 06/30/2000 FY99: \$22,000 Total: \$32,000
Prin. Invest.: J R MOHAN
Tech. Officer: LARC/M HENDERSON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 1 52224 **VA POLYTECHNIC INST & ST UNIV** **9441**
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/27/1999 – 08/31/2000 FY99: \$5,750 Total: \$5,750
Prin. Invest.: G J OGLE
Tech. Officer: LARC/J M SEATON
CASE Category: 22 – COMPUTER SCIENCE

NGT 3 52304 **VA POLYTECHNIC INST & ST UNIV** **9442**
 GRADUATE STUDENT RESEARCHER PROGRAM
 07/20/1995 – 08/15/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: U VANDSBURGER
Tech. Officer: GRC/L SHAW
CASE Category: 46 – MECHANICAL ENGR

NGT 5 30198 **VA POLYTECHNIC INST & ST UNIV** **9443**
 ESTIMATING FOREST VEGETATION BIOMASS USING AIRBORNE LIDAR
 MEASUREMENTS STUDENT: SORIN POPESCU
 08/24/1999 – 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: R H WYNNE
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 50260 **VA POLYTECHNIC INST & ST UNIV** **9444**
 A SHARED AUGMENTED REALITY SYSTEM FOR COMMUNICATION ACROSS
 ENVIRONMENTS STUDENT: WILLIAM STADERMAN
 07/07/1999 – 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: B M KLEINER
Tech. Officer: GSFC/L SMITH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50262 **VA POLYTECHNIC INST & ST UNIV** **9445**
 SHORT-TERM TIME COURSE SKELETAL RESPONSES TO HIGH INTENSITY
 PHYSICAL ACTIVITY
 07/08/1999 – 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: W HERBERT
Tech. Officer: GSFC/L SMITH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 90011 **VA POLYTECHNIC INST & ST UNIV** **9446**
 NASA UNDERGRADUATE SCHOLAR AWARDS FOR RESEARCH (US
 12/19/1996 – 08/14/1998 FY99: -\$94 Total: \$63,906
Prin. Invest.: J NOTTINGHAM
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 43 – CHEMICAL ENGR

NAG 8 1276 **VIRGINIA COMMONWEALTH UNIVERSITY** **9447**
 STUDIES ON POLYMERIZATION AND NANOPARTICLE COMPOSITES
 04/25/1996 – 04/30/2000 FY99: \$85,000 Total: \$304,583
Prin. Invest.: S EL-SHALL
Tech. Officer: MSFC/D R WOODARD, MSFC/B G PENN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1484 **VIRGINIA COMMONWEALTH UNIVERSITY** **9448**
 R/S GAS PHASE POLYMERIZATION AND NUCLEATION EXPERIMENTS IN
 MICROGRAVITY
 02/01/1998 – 01/31/2002 FY99: \$116,000 Total: \$196,000
Prin. Invest.: M S EL-SHALL
Tech. Officer: MSFC/P M DOTY
CASE Category: 12 – CHEMISTRY

NAS 9 19539 **VIRGINIA COMMONWEALTH UNIVERSITY** **9449**
 NEUROLAB EXPERIMENT DOCUMENT FOR E-049
 02/22/1996 – 07/31/2000 FY99: \$185,000 Total: \$796,000
Prin. Invest.: D ECKBURG
Tech. Officer: JSC/A LEE
CASE Category: 56 – MEDICAL

WASHINGTON

NASA'S UNIVERSITY PROGRAM

NAS 9 19541 VIRGINIA COMMONWEALTH UNIVERSITY 9450
 AUTONOMIC MECHANISMS DURING PROLONGED WEIGHTLESSNESS
 03/14/1996 - 09/30/1999 FY99: \$62,449 Total: \$634,149
 Prin. Invest.: H B CHERMSIDE
 Tech. Officer: JSC/C M BUNTIN
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NCC 3 645 VIRGINIA COMMONWEALTH UNIVERSITY 9451
 INVESTIGATION OF BOUNDARY LAYER DEVELOPMENT IN LOW-PRESSURE
 TURBINE STAGES
 09/03/1998 - 10/05/1999 FY99: \$32,500 Total: \$34,500
 Prin. Invest.: D J DORNEY
 Tech. Officer: GRC/D E ASHPIS
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 9 87 VIRGINIA COMMONWEALTH UNIVERSITY 9452
 MEDICAL INFORMATICS AND TECH APPLICATIONS CONSORTIUM
 07/01/1999 - 06/30/2002 FY99: \$750,000 Total: \$750,000
 Prin. Invest.: R C MERRELL
 Tech. Officer: JSC/S L POOL
 CASE Category: 11 - ASTRONOMY

NAG 1 765 VIRGINIA STATE UNIVERSITY 9453
 COMPUTER SIMULATION OF RADIATION DAMAGE IN SEMI-CONDUCTORS
 AND POLYMERS
 05/27/1987 - 10/31/1997 FY99: -\$1 Total: \$562,007
 Prin. Invest.: J J STITH, J C DAVENPORT
 Tech. Officer: LARC/J W WILSON
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

WASHINGTON

NAG 5 2908 CENTRAL WASHINGTON UNIVERSITY 9454
 KINEMATICS AND DYNAMICS OF CONTINENTAL LITHOSPHERE IN THE
 EASTERN CALIF. SHEARZONE: ETC...
 03/14/1995 - 03/14/1999 FY99: \$0 Total: \$382,404
 Prin. Invest.: M MILLER
 Tech. Officer: GSFC/B G BILLS
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7672 CENTRAL WASHINGTON UNIVERSITY 9455
 FUNDING FOR VARIATIONS IN SEA LEVEL CHANGE ALONG THE CASCADIA
 MARGIN. (SENH98-0083)
 09/01/1998 - 12/31/1999 FY99: \$75,000 Total: \$112,100
 Prin. Invest.: M MILLER
 Tech. Officer: GSFC/H V FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3826 CENTRAL WASHINGTON UNIVERSITY 9456
 SATELLITE-BASED INVESTIGATIONS OF THE TRANSITION FROM AN
 OCEANIC TO CONTINENTAL TRANSFORM MARGIN
 12/09/1993 - 07/31/1998 FY99: -\$9,396 Total: \$222,252
 Prin. Invest.: M MILLER
 Tech. Officer: HQ/M BALTUCK
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 2 6034 HERITAGE COLLEGE 9457
 ENHANCING SCIENCE TEACHER TRAINING USING WATER RESOURCES &
 GLOBE
 06/10/1999 - 01/31/2000 FY99: \$157,628 Total: \$157,628
 Prin. Invest.: P T ALEXANDER
 Tech. Officer: ARC/B J COLLINS, ARC/G S LEE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 99027 HERITAGE COLLEGE 9458
 APPLICATION OF REMOTELY SENSED INFORMATION TO ENVIRONMENTAL
 PROBLEMS OF HISPANICS AND NATIVE AM
 09/08/1999 - 09/07/2000 FY99: \$99,692 Total: \$99,692
 Prin. Invest.: J W FALCO
 Tech. Officer: SSC/R TRAVIS
 CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NAG 5 6445 NORTHWEST INDIAN COLLEGE 9459
 PACE AWARD-SEAQUEST PHASE II PROGRAM
 10/24/1997 - 09/30/1999 FY99: \$0 Total: \$197,840
 Prin. Invest.: K YAMAMOTO
 Tech. Officer: GSFC/STOUTSENBERGER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1000 NORTHWEST INDIAN COLLEGE 9460
 JOVE
 11/24/1993 - 09/30/1997 FY99: \$0 Total: \$97,704
 Prin. Invest.: D BURNS, C D WESTER
 Tech. Officer: MSFC/F SIX Tech. Officer: NONE
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NCC 5 423 NORTHWEST INDIAN COLLEGE 9461
 ASSESSING AGRICULTURAL LAND CONVERSION IMPACTS TO TRIBAL FISHERIES
 USING NASA SATELLITE IMAGERY
 09/13/1999 - 08/31/2000 FY99: \$77,289 Total: \$77,289
 Prin. Invest.: G BLEDSOE
 Tech. Officer: GSFC/M JASINSKI
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6303 UNIVERSITY OF PUGET SOUND 9462
 PHOTOSYNTHESIS AND IRON TRANSFORMATION IN MATS
 10/06/1997 - 11/30/1999 FY99: \$31,510 Total: \$112,778
 Prin. Invest.: D PIERSON
 Tech. Officer: GSFC/M A MEYER
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 1 1709 UNIVERSITY OF WASHINGTON 9463
 NASA COLLABORATIVE STUDIES ON THE RADIATIVE EFFECTS OF CLOUDS
 AND AEROSOLS NLPN 95-211R
 03/29/1995 - 03/31/1999 FY99: -\$1 Total: \$487,000
 Prin. Invest.: P V HOBBS
 Tech. Officer: LARC/D S MCDUGAL
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1803 UNIVERSITY OF WASHINGTON 9464
 WAVE DYNAMICS AND TRANSPORT IN THE STRATOSPHERE
 02/08/1996 - 06/30/1999 FY99: \$0 Total: \$365,462
 Prin. Invest.: J R HOLTON
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1877 UNIVERSITY OF WASHINGTON 9465
 COUPLING SATELLITE AND GROUND-BASED INSTRUMENT TO MAP CLIMATE FORCING BY ANTHROPOGENIC AEROSOLS
 11/13/1996 - 08/15/1999 FY99: \$0 Total: \$158,469
Prin. Invest.: R J CHARLSON
Tech. Officer: LARC/D M WINKER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1894 UNIVERSITY OF WASHINGTON 9466
 A DEMONSTRATION OF AN AIR TRAFFIC CONTROL SAFETY EVALUATION
 02/12/1997 - 10/13/1998 FY99: -\$3,429 Total: \$246,572
Prin. Invest.: N G LEVENSON
Tech. Officer: LARC/F S SHIPMAN, LARC/K A SMITH
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2020 UNIVERSITY OF WASHINGTON 9467
 INTENT SPECIFICATION
 03/10/1998 - 12/31/1998 FY99: -\$39,672 Total: \$4,078
Prin. Invest.: N G LEVESON
Tech. Officer: LARC/D E ECKHARDT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2055 UNIVERSITY OF WASHINGTON 9468
 STRUCTURAL DESIGN METHODOLOGY BASED ON CONCEPTS OF UNCERTAINTY
 05/08/1998 - 02/29/2000 FY99: \$132,988 Total: \$201,523
Prin. Invest.: K Y LIN
Tech. Officer: LARC/W J STROUD
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2072 UNIVERSITY OF WASHINGTON 9469
 COORD'D PARAMETERIZATION DEV & LG-EDDY SIMULATION FOR MARINE & ARCTIC CLOUD-TOPPED BOUNDARY LAYERS
 06/12/1998 - 03/31/2001 FY99: \$53,000 Total: \$139,000
Prin. Invest.: C S BRETHERTON
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2079 UNIVERSITY OF WASHINGTON 9470
 AIRBORNE STUDIES IN THE ARCTIC IN SUPPORT OF FIRE III
 06/12/1998 - 03/11/2001 FY99: \$148,000 Total: \$499,064
Prin. Invest.: P V HOBBS, D A HEGG
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2193 UNIVERSITY OF WASHINGTON 9471
 DYNAMICAL COUPLING OF STRATOSPHERE & TROPOSPHERE
 05/12/1999 - 03/30/2002 FY99: \$125,861 Total: \$125,861
Prin. Invest.: J R HOLTON
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2200 UNIVERSITY OF WASHINGTON 9472
 COUPLING SATELLITE AND GROUND-BASED INSTRUMENTS TO MAP CLIMATE FORCING BY ANTHROPOGENIC AEROSOLS
 06/04/1999 - 08/15/2000 FY99: \$77,063 Total: \$77,063
Prin. Invest.: R J CHARLSON
Tech. Officer: LARC/C A HOSTELER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 723 UNIVERSITY OF WASHINGTON 9473
 STRUCTURAL MODELING OF LIFTING SURFACE CONFIGURATIONS FOR AIRPLANE MULTI-DISCIPLINARY
 07/30/1991 - 09/30/1997 FY99: -\$2,421 Total: \$288,771
Prin. Invest.: E LIVNE
Tech. Officer: ARC/M D MOORE, ARC/H D MIURA
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1157 UNIVERSITY OF WASHINGTON 9474
 PRESSURE SENSITIVE PAINT: IMPROVED QUALITY CONTROL & REFERENCE
 08/27/1997 - 01/14/2000 FY99: \$70,000 Total: \$372,000
Prin. Invest.: M P GOUTERMAN, NONE
Tech. Officer: ARC/J H BELL, ARC/E T SCHAIRER
CASE Category: 12 - CHEMISTRY

NAG 3 1595 UNIVERSITY OF WASHINGTON 9475
 PRESSURE WAVE MACHINE DEVELOPMENT
 06/07/1994 - 09/30/1998 FY99: \$0 Total: \$226,067
Prin. Invest.: J J KELLER
Tech. Officer: GRC/G SKOCH
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1837 UNIVERSITY OF WASHINGTON 9476
 PHORETIC AND RADIMEDTRIC FORCE MEASUREMENT ON MICROPARTICLES IN MICROGRAVITY CONDITIONS
 04/22/1996 - 04/30/2000 FY99: \$80,000 Total: \$247,000
Prin. Invest.: E J DAVIS
Tech. Officer: GRC/J S LING, GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1865 UNIVERSITY OF WASHINGTON 9477
 INDIUM MONO-ION OSCILLATOR II
 07/23/1996 - 07/22/2000 FY99: \$62,000 Total: \$320,000
Prin. Invest.: W NAGOURNEY, M DEHMELT
Tech. Officer: GRC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 5 677 UNIVERSITY OF WASHINGTON 9478
 MICROBURST ELECTRON PRECIPITATION
 03/29/1991 - 04/30/1999 FY99: \$0 Total: \$936,486
Prin. Invest.: G K PARKS
Tech. Officer: GSFC/B J FLOWERS
CASE Category: 13 - PHYSICS

NAG 5 1599 UNIVERSITY OF WASHINGTON 9479
 STUDIES OF TROPICAL RAIN SYSTEMS FOR TRMM VALIDATION
 05/13/1991 - 09/30/1998 FY99: -\$7,816 Total: \$979,214
Prin. Invest.: R A HOUZE
Tech. Officer: GSFC/O THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1927 UNIVERSITY OF WASHINGTON 9480
 S193: LOOKING DOWN THE ACCRETION AXIS
 03/04/1992 - 09/14/1998 FY99: -\$15 Total: \$88,983
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2213 UNIVERSITY OF WASHINGTON 9481
 LARGE SCALE STRUCTURE AND GALAXY FORMATION
 02/18/1993 - 03/31/1998 FY99: -\$164 Total: \$1,485,836
Prin. Invest.: G LAKE, L ADAMS, J BARDEEN
Tech. Officer: GSFC/J R FISCHER
CASE Category: 11 - ASTRONOMY

NAG 5 2294 UNIVERSITY OF WASHINGTON 9482
 FROM MICROSCALE TO MESOSCALE: SNOWMELT, SOIL MOISTURE AND
 EVAPOTRANSPIRATION USING DISTRIBUTED...
 06/22/1993 - 06/30/1998 FY99: -\$169 Total: \$211,530
Prin. Invest.: D P LETTENMAIER
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2767 UNIVERSITY OF WASHINGTON 9483
 THE ACCRETION AND SPECTRUM OF U GEM IN QUIESCENCE
 10/26/1994 - 11/14/1999 FY99: \$0 Total: \$28,296
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2793 UNIVERSITY OF WASHINGTON 9484
 ASTROPHYSICS OF COSMIC EVOLUTION
 11/21/1994 - 08/31/1999 FY99: \$0 Total: \$387,500
Prin. Invest.: C J HOGAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2802 UNIVERSITY OF WASHINGTON 9485
 DIAGNOSTIC MODELING STUDIES OF OZONE AND WATER VAPOR USING
 UARS DATA
 11/18/1994 - 11/30/1998 FY99: \$0 Total: \$230,643
Prin. Invest.: K TUNG
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2813 UNIVERSITY OF WASHINGTON 9486
 WIND 3-D PLASMA DATA ANALYSIS
 12/12/1994 - 12/14/1997 FY99: -\$17 Total: \$467,883
Prin. Invest.: G K PARKS
Tech. Officer: GSFC/K W OGILVIE
CASE Category: 13 - PHYSICS

NAG 5 2878 UNIVERSITY OF WASHINGTON 9487
 DISSEMINATION OF ATMOSPHERIC SCIENCES AND SPACE SCIENCES
 DATA AND INFORMATION K-12 AND THE PUBLIC...
 01/19/1995 - 07/31/1998 FY99: \$0 Total: \$879,472
Prin. Invest.: N UNTERSTEINER
Tech. Officer: GSFC/F HASLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3023 UNIVERSITY OF WASHINGTON 9488
 THE EVOLUTION OF GALAXIES AND CLUSTERS OF GALAXIES
 10/02/1995 - 09/30/1999 FY99: \$0 Total: \$270,000
Prin. Invest.: G R LAKE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3078 UNIVERSITY OF WASHINGTON 9489
 MEASURING SURFACE TOPOGRAPHY OF ICE SHEETS: A COMPREHENSIVE
 STUDY
 09/25/1995 - 09/30/1998 FY99: \$0 Total: \$62,800
Prin. Invest.: D P WINEBRENNER
Tech. Officer: GSFC/R A BINDSCHADLER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3121 UNIVERSITY OF WASHINGTON 9490
 A STUDY OF MAGNETIC ACCRETION IN VV PUP AND BL HYI
 10/18/1995 - 10/31/1999 FY99: \$0 Total: \$20,346
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 3170 UNIVERSITY OF WASHINGTON 9491
 POLAR ULTRAVIOLET IMAGING DATA ANALYSIS
 02/22/1996 - 09/30/1999 FY99: \$0 Total: \$1,880,275
Prin. Invest.: G K PARKS
Tech. Officer: GSFC/R A HOFFMAN
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 5 3188 UNIVERSITY OF WASHINGTON 9492
 WAVE DYNAMICS AND TRANSPORT IN THE MIDDLE ATMOSPHERE (UARS).
 03/29/1996 - 03/31/1998 FY99: -\$92,530 Total: \$375,470
Prin. Invest.: J R HOLTON, C G LEOVY
Tech. Officer: GSFC/A R DOUGLASS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3292 UNIVERSITY OF WASHINGTON 9493
 ACCRETION MONITORING DURING THE SUPERCYCLE OF V1159 ORI
 07/17/1996 - 01/14/1999 FY99: \$0 Total: \$24,748
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3293 UNIVERSITY OF WASHINGTON 9494
 SIMULTANEOUS X-RAY AND UV OBSERVATIONS OF THE SHORT-EST
 KNOWN PERIOD BINARY STAR
 07/17/1996 - 01/14/1998 FY99: -\$30 Total: \$34,011
Prin. Invest.: B MARGON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3345 UNIVERSITY OF WASHINGTON 9495
 SPACE SPECTROSCOPY OF THE WHITE DWARFS IN CATAclysmic VARI-
 ABLES: PROBES OF ACCRETION PROCESSES....
 08/13/1996 - 08/14/1999 FY99: \$0 Total: \$99,837
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3462 UNIVERSITY OF WASHINGTON 9496
 RETROVATIVE RESEARCH PROGRAM - STABILITY OF THE SOL
 11/02/1996 - 08/31/1999 FY99: \$0 Total: \$140,000
Prin. Invest.: T R QUINN
Tech. Officer: GSFC/D HOLLAND
CASE Category: 13 - PHYSICS

NAG 5 3624 UNIVERSITY OF WASHINGTON 9497
 MODELING OF POLYNYA PROPERTIES IN THE POLAR SEAS
 02/12/1997 - 12/31/1997 FY99: -\$94 Total: \$28,506
Prin. Invest.: S MARTIN
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3729 UNIVERSITY OF WASHINGTON 9498
 INVESTIGATION OF FOREST STAND STRUCTURAL & COMPOSITIONAL
 NORTHWEST FORESTS
 02/12/1997 - 09/30/1998 FY99: -\$11 Total: \$99,989
Prin. Invest.: D R GILLESPIE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3779 UNIVERSITY OF WASHINGTON 9499
 MAPPING ANTARCTIC OZONE IN THE 1970S FROM VISIBLE-
 02/12/1997 - 06/30/1998 FY99: \$0 Total: \$66,836
Prin. Invest.: S G WARREN
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3958 UNIVERSITY OF WASHINGTON 9500
 TRACE GAS DYNAMICS IN THE JAU RIVER BASIN, NORTH C
 02/13/1997 - 02/14/1999 FY99: \$0 Total: \$38,319
Prin. Invest.: D E RICHEY
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4074 UNIVERSITY OF WASHINGTON 9501
 PERCEIVED SELF-MOTION ASSESSED BY COMPUTER-MADE AN
 03/17/1997 - 02/14/1999 FY99: \$0 Total: \$70,512
Prin. Invest.: D E PARKER
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4105 UNIVERSITY OF WASHINGTON 9502
 TORQUE FLUCTUATIONS IN SMC X-1
 04/18/1997 - 12/31/1999 FY99: \$0 Total: \$40,000
Prin. Invest.: P E BOYNTON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4175 UNIVERSITY OF WASHINGTON 9503
 ESTIMATING ALBEDO & SUMMER ICE MELT WITH RGPS PROD
 03/19/1997 - 12/31/1999 FY99: \$77,987 Total: \$155,148
Prin. Invest.: R W LINDSAY
Tech. Officer: GSFC/R H THOMAS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4176 UNIVERSITY OF WASHINGTON 9504
 USE OF RADARSAT DATA TO ESTIMATE SEA-ICE MELTING & ESTIMATE
 FRESH WATER FLUX TO THE ARCTIC OCEAN
 03/24/1997 - 12/31/1999 FY99: \$67,952 Total: \$193,979
Prin. Invest.: S MARTIN
Tech. Officer: GSFC/R H THOMAS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4242 UNIVERSITY OF WASHINGTON 9505
 A THEORETICAL STUDY OF PROCESSES DRIVING THE FORMATION
 04/17/1997 - 04/14/2000 FY99: \$71,166 Total: \$204,872
Prin. Invest.: T QUIN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4375 UNIVERSITY OF WASHINGTON 9506
 POLAR EXCHANGE AT THE SEA SURFACE
 06/11/1997 - 05/31/2000 FY99: \$615,677 Total: \$2,564,712
Prin. Invest.: D A ROTHROCK
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4473 UNIVERSITY OF WASHINGTON 9507
 INTERPLANETARY DUST
 06/02/1997 - 03/14/2000 FY99: \$179,000 Total: \$552,000
Prin. Invest.: D E BROWNLEE
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4540 UNIVERSITY OF WASHINGTON 9508
 THERMAL HISTORY OF LUNAR CRUSTAL ROCKS
 05/06/1997 - 12/14/1999 FY99: \$35,000 Total: \$97,000
Prin. Invest.: D S MCCALLUM
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4630 UNIVERSITY OF WASHINGTON 9509
 AEROSOL CONCENTRATIONS AND LARGE SCALE CLOUD DISTRIBUTION
 05/21/1997 - 11/30/1999 FY99: \$0 Total: \$121,297
Prin. Invest.: M B BAKER
Tech. Officer: GSFC/M CHOU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4681 UNIVERSITY OF WASHINGTON 9510
 ENERGY DISTRIBUTION WITHIN THE TERRESTRIAL MAGNETOSPHERE WITH
 NUMERICAL MODELS
 06/17/1997 - 09/30/1999 FY99: \$51,659 Total: \$105,136
Prin. Invest.: D MCCARTHY
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4686 UNIVERSITY OF WASHINGTON 9511
 REMOTE SENSING OF MAGNETOSPHERIC STRUCTURE USING (STEP) PAR-
 TICLE AND FIELD DATA
 06/05/1997 - 05/31/1999 FY99: \$0 Total: \$80,422
Prin. Invest.: D C WHIPPLE
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4712 UNIVERSITY OF WASHINGTON 9512
 TITLE: THE REGIONAL AMAZON MODEL SYNOPTIC SCALE HETEROCYCLIC
 BIOGEOCHEMICAL CYCLES FROM EOS (EOSRAM)
 06/23/1997 - 06/30/2000 FY99: \$230,202 Total: \$1,007,956
Prin. Invest.: J RICHEY
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4728 UNIVERSITY OF WASHINGTON 9513
 SATELLITE OBSERVATIONS OF ICE SHEET CLIMATE VARIATIONS
 06/19/1997 - 09/14/1998 FY99: \$0 Total: \$143,429
Prin. Invest.: D D WINBRENNER
Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4739 UNIVERSITY OF WASHINGTON 9514
 RADIATIVE TRANSFER IN SNOW TERRAIN FOR APPLICATION REMOTE SENSING
 06/17/1997 - 06/14/2000 FY99: \$33,208 Total: \$106,208
Prin. Invest.: L TSANG
Tech. Officer: GSFC/A T CHANG
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4791 UNIVERSITY OF WASHINGTON 9515
 MONITORING THE ACCRETION OF TWO OLD NOVAE
 06/17/1997 - 12/31/1999 FY99: \$0 Total: \$5,000
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 4795 UNIVERSITY OF WASHINGTON 9516
 TRMM VALIDATION: INTEGRATION OF TRMM SATELLITE AND DATA TO DETERMINE TROPICAL HEATING
 09/08/1997 - 09/14/2000 FY99: \$113,679 Total: \$573,679
Prin. Invest.: R A HOUZE, JR.
Tech. Officer: GSFC/O W THIELE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4961 UNIVERSITY OF WASHINGTON 9517
 INSTRUMENTATION OF NEW AIRCRAFT FOR ATMOSPHERIC RESEARCH
 07/03/1997 - 06/14/1998 FY99: \$0 Total: \$680,982
Prin. Invest.: P V HOBBS
Tech. Officer: GSFC/D STARR
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5011 UNIVERSITY OF WASHINGTON 9518
 ELECTRIC FIELD & OPTICAL STUDIES OF LIGHTNING GENERATED PULSES
 05/12/1993 - 09/30/1997 FY99: -\$3,056 Total: \$339,407
Prin. Invest.: R H HOLZWORTH
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
 CASE Category: 13 - PHYSICS

NAG 5 5183 UNIVERSITY OF WASHINGTON 9519
 DROPPS: DISTRIBUTION AND ROLE OF PARTICLES IN THE POLAR SUMMER MESOSPHERE
 03/13/1998 - 12/31/1999 FY99: \$126,952 Total: \$185,616
Prin. Invest.: R H HOLZWORTH
Tech. Officer: GSFC/W B JOHNSON
 CASE Category: 13 - PHYSICS

NAG 5 5190 UNIVERSITY OF WASHINGTON 9520
 ATMOSPHERIC LIGHTNING ATMOSPHERIC LIGHTNING
 04/16/1998 - 04/20/2001 FY99: \$64,764 Total: \$140,260
Prin. Invest.: M MCCARTHY
Tech. Officer: GSFC/W B JOHNSON
 CASE Category: 13 - PHYSICS

NAG 5 6067 UNIVERSITY OF WASHINGTON 9521
 IMPACT OF FOREST CLEARCUTTING IN THE PACIFIC NORTH WEST EVENTS
 07/28/1997 - 07/31/2000 FY99: \$29,000 Total: \$199,000
Prin. Invest.: A GILLESPIE
Tech. Officer: GSFC/H FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6101 UNIVERSITY OF WASHINGTON 9522
 CLIMATE PROCESSES OVER THE OCEAN
 07/24/1997 - 12/31/1999 FY99: \$264,000 Total: \$1,392,000
Prin. Invest.: D HARTMANN
Tech. Officer: GSFC/J A CURRAN
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 6244 UNIVERSITY OF WASHINGTON 9523
 MAGNETOSHEATH/IONOSPHERIC COUPLING IN THE CUSP/CL
 08/21/1997 - 05/31/2000 FY99: \$47,250 Total: \$159,000
Prin. Invest.: D M WINGLEE
Tech. Officer: GSFC/M M MELLOTT
 CASE Category: 13 - PHYSICS

NAG 5 6297 UNIVERSITY OF WASHINGTON 9524
 UNIVERSITY OF WASHINGTON - RESEARCH EARTH SYSTEMS
 09/15/1997 - 08/31/1999 FY99: \$75,000 Total: \$150,000
Prin. Invest.: J M DECOSMO
Tech. Officer: GSFC/N KHAZENIE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6328 UNIVERSITY OF WASHINGTON 9525
 PLASMODESMATA AND THE CONTROL OF GRAVITROPISM
 09/11/1997 - 09/30/1999 FY99: \$0 Total: \$65,000
Prin. Invest.: D CLELAND
Tech. Officer: GSFC/T SCOTT
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6365 UNIVERSITY OF WASHINGTON 9526
 ASSESSMENT OF REQUIRED ACCURACY OF DIGITAL ELEVATION MODELING
 09/17/1997 - 03/31/1999 FY99: -\$157 Total: \$134,349
Prin. Invest.: D LETTENMAIER
Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6388 UNIVERSITY OF WASHINGTON 9527
 ICE THICKNESS DISTRIBUTION SAMPLING TEST
 10/07/1997 - 09/30/1999 FY99: \$46,206 Total: \$147,730
Prin. Invest.: D ROTHROCK
Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6392 UNIVERSITY OF WASHINGTON 9528
 GYRE-SCALE CIRCULATION AND COUPLING IN THE NORTH ATLANTIC AND PACIFIC OCEANS: A RENEWAL PROPOSAL
 10/17/1997 - 12/30/1998 FY99: \$0 Total: \$85,000
Prin. Invest.: D KELLY
Tech. Officer: GSFC/E LINDSTROM
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6463 UNIVERSITY OF WASHINGTON 9529
 BROADBAND INFRARED THERMOMETER MEASUREMENTS FOR MO DIS
 VALIDATION
 10/14/1997 - 09/30/2000 FY99: \$14,970 Total: \$417,008
 Prin. Invest.: A T JESSUP
 Tech. Officer: GSFC/D O STARR
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6493 UNIVERSITY OF WASHINGTON 9530
 VALIDATION OF RADARSAT GEOPHYSICAL PROCESSOR SYSTEMS PROD-
 UCTS
 10/27/1997 - 09/30/2000 FY99: \$0 Total: \$234,884
 Prin. Invest.: R LINDSAY
 Tech. Officer: GSFC/J DODGE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6505 UNIVERSITY OF WASHINGTON 9531
 ESTIMATION OF FLOOD HAZARDS THROUGH REMOTE SENSING AND
 MODELING (SENH 06-0114, LETTENMAIR AND WOO
 10/24/1997 - 10/31/1999 FY99: \$0 Total: \$92,500
 Prin. Invest.: D LETTENMAIER
 Tech. Officer: GSFC/H FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6626 UNIVERSITY OF WASHINGTON 9532
 CODES TO ENABLE DIRECT SIMULATION OF SOLAR SYSTEM FORMATION.
 11/17/1997 - 11/14/1999 FY99: \$149,634 Total: \$294,634
 Prin. Invest.: G LAKE
 Tech. Officer: GSFC/J FISCHER
 CASE Category: 11 - ASTRONOMY

NAG 5 6678 UNIVERSITY OF WASHINGTON 9533
 EQUATOR-S PLASMA RESEARCH GRANT
 11/28/1997 - 09/30/1998 FY99: \$0 Total: \$80,000
 Prin. Invest.: G R K S
 Tech. Officer: GSFC/M HESSE
 CASE Category: 13 - PHYSICS

NAG 5 6688 UNIVERSITY OF WASHINGTON 9534
 A CONTINUED STUDY OF ACCRETION IN MAGNETIC SYSTEMS WITH
 LARGE RATIOS OF SOFT/HARD X-RAYS
 12/01/1997 - 10/31/1999 FY99: \$0 Total: \$11,520
 Prin. Invest.: P SZKODY
 Tech. Officer: GSFC/R J OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 6819 UNIVERSITY OF WASHINGTON 9535
 SATELLITE OBSERVATIONS OF ICE SHEET CLIMATE VARIATIONS ON DECA-
 DAL TIME SCALES
 01/08/1998 - 12/31/1999 FY99: \$118,085 Total: \$206,699
 Prin. Invest.: D WINEBRENNER
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6885 UNIVERSITY OF WASHINGTON 9536
 A HIGH-RESOLUTION SURVEY OF THE DISK OF M31 - ROSAT PROPOSAL
 02/06/1998 - 04/30/1999 FY99: \$0 Total: \$6,475
 Prin. Invest.: E MAGNIER
 Tech. Officer: GSFC/R PETRE
 CASE Category: 11 - ASTRONOMY

NAG 5 6894 UNIVERSITY OF WASHINGTON 9537
 SATELLITE STUDIES OF THE ICE COVERS OF THE OKHOTSK & SIBERIAN
 SHELF SEAS
 01/16/1998 - 12/31/1999 FY99: \$79,483 Total: \$162,550
 Prin. Invest.: S MARTIN
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6924 UNIVERSITY OF WASHINGTON 9538
 GRANT
 02/04/1998 - 01/31/2000 FY99: \$90,000 Total: \$478,269
 Prin. Invest.: G PARKS
 Tech. Officer: GSFC/M HESSE
 CASE Category: 13 - PHYSICS

NAG 5 6942 UNIVERSITY OF WASHINGTON 9539
 IMPROVING THE LUNAR LASER-RANGING TEST OF THE STRO NG EQUIV-
 ALENCE PRINCIPLE
 02/10/1998 - 01/31/2000 FY99: \$15,000 Total: \$42,000
 Prin. Invest.: J H GUNDLACH
 Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 6995 UNIVERSITY OF WASHINGTON 9540
 ROSAT PROPOSAL - RCW 58: THE MOST FILAMENTARY BU BBLE
 02/19/1998 - 02/14/1999 FY99: -\$81 Total: \$3,619
 Prin. Invest.: E MAGNIER
 Tech. Officer: GSFC/R PETRE
 CASE Category: 11 - ASTRONOMY

NAG 5 7054 UNIVERSITY OF WASHINGTON 9541
 GRAVITATIONAL MICROLENSING
 02/27/1998 - 09/30/1999 FY99: \$0 Total: \$60,000
 Prin. Invest.: C W STUBBS
 Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 7090 UNIVERSITY OF WASHINGTON 9542
 WAVE DYNAMICS AND TRANSPORT IN THE MIDDLE ATMOSPHERE (UARS)
 02/24/1998 - 02/28/2000 FY99: \$98,456 Total: \$172,414
 Prin. Invest.: D R HOLTON
 Tech. Officer: GSFC/A DOUGLASS
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7107 UNIVERSITY OF WASHINGTON 9543
 EXTREME ULTRAVIOLET OBSERVATIONS OF THE BRIGHT AM HERCULIS
 TYPE CATAclysmic VARIABLE AR
 03/13/1998 - 03/31/1999 FY99: \$0 Total: \$18,100
 Prin. Invest.: P SZKODY
 Tech. Officer: GSFC/R J OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 7114 UNIVERSITY OF WASHINGTON 9544
 WIND DATA ANALYSIS USING THE 3-D INSTRUMENT
 03/31/1998 - 03/31/2000 FY99: \$140,000 Total: \$280,000
 Prin. Invest.: G PARKS
 Tech. Officer: GSFC/K OGILVIE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7278 UNIVERSITY OF WASHINGTON 9545
 XTE PROPOSAL - THE OUTBURST CYCLE OF V803 CEN
 04/15/1998 - 04/30/1999 FY99: \$0 Total: \$10,353
 Prin. Invest.: P SZKODY
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7300 UNIVERSITY OF WASHINGTON 9546
 EVALUATION OF HYDROLOGIC CONTROLS ON CATCHMENT SCALE
 ENERGY & MOISTURE FLUXES
 05/27/1998 - 04/30/2000 FY99: \$36,371 Total: \$88,887
 Prin. Invest.: D LETTENMAIER
 Tech. Officer: GSFC/D WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7330 UNIVERSITY OF WASHINGTON 9547
 XTE PROPOSAL - TIMING THE X-RAY SOURCE IN NGC 6652: THE REMAINING LUMINOUS GLOBULAR CLUSTER
 04/24/1998 - 04/30/2000 FY99: \$10,000 Total: \$20,200
 Prin. Invest.: B MARGON
 Tech. Officer: GSFC/L KALUZIENSKI
 CASE Category: 11 - ASTRONOMY

NAG 5 7495 UNIVERSITY OF WASHINGTON 9548
 MAPPING THE SPATIAL DISTRIBUTION AND TIME EVOLUTION OF SNOW-WATER EQUIVALENT WITH PASSIVE MICROWAVE
 06/29/1998 - 09/14/2001 FY99: \$0 Total: \$350,000
 Prin. Invest.: L TSANG
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7526 UNIVERSITY OF WASHINGTON 9549
 EVALUATION OF OCEANIC COOL-SKIN AND WARM LAYER MODELS USING LONG-TERM MEASUREMENTS
 06/08/1998 - 05/31/2001 FY99: \$71,000 Total: \$217,721
 Prin. Invest.: A T JESSUP
 Tech. Officer: GSFC/E LINDSTROM
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7550 UNIVERSITY OF WASHINGTON 9550
 AIRBORNE MICROWAVE IMAGING OF RIVER VELOCITIES
 06/30/1998 - 07/31/2000 FY99: \$0 Total: \$330,000
 Prin. Invest.: W J PLANT
 Tech. Officer: GSFC/E T ENGMAN
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7604 UNIVERSITY OF WASHINGTON 9551
 CIS NET: IN SITU AND REMOTE MONITORING OF PRODUCTIVITY AND NUTRIENT CYCLES IN PUGET SOUND
 07/21/1998 - 09/30/2000 FY99: \$28,500 Total: \$147,164
 Prin. Invest.: M PERRY
 Tech. Officer: GSFC/J W CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7675 UNIVERSITY OF WASHINGTON 9552
 UTILIZATION OF THE UNIV OF WASHINGTON'S AIRBORNE MEASUREMENTS FOR STUDIES OF THE RADIATIVE EFFECTS OF
 09/09/1998 - 08/31/2000 FY99: \$0 Total: \$120,000
 Prin. Invest.: P V HOBBS
 Tech. Officer: GSFC/M I MISHCHENKO
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7732 UNIVERSITY OF WASHINGTON 9553
 POLAR UVI MISSION DATA ANALYSIS EXTENDED MISSION
 09/29/1998 - 09/30/2000 FY99: \$15,000 Total: \$634,800
 Prin. Invest.: G K PARKS
 Tech. Officer: GSFC/R HOFFMAN
 CASE Category: 13 - PHYSICS

NAG 5 7767 UNIVERSITY OF WASHINGTON 9554
 NGST AD HOC SCIENCE WORKING GROUP
 01/11/1999 - 12/31/1999 FY99: \$20,106 Total: \$20,106
 Prin. Invest.: D MARGON
 Tech. Officer: GSFC/E SMITH
 CASE Category: 11 - ASTRONOMY

NAG 5 7819 UNIVERSITY OF WASHINGTON 9555
 EOS OBSERVATION RESOURCE
 12/14/1998 - 07/14/2000 FY99: \$349,872 Total: \$349,872
 Prin. Invest.: P V HOBBS
 Tech. Officer: GSFC/M D KING
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7847 UNIVERSITY OF WASHINGTON 9556
 VARIABILITY OF NET PRECIPITATION OVER ANTARCTIC SEA ICE AND ITS EFFECTS ON ICE-OCEAN INTERACTIONS
 11/23/1998 - 12/31/1999 FY99: \$107,143 Total: \$107,143
 Prin. Invest.: A SCHWEIGER
 Tech. Officer: GSFC/S GOGINENI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7886 UNIVERSITY OF WASHINGTON 9557
 VALIDATION OF ACOUSTICAL RAINFALL MEASUREMENTS
 12/02/1998 - 11/30/1999 FY99: \$137,717 Total: \$137,717
 Prin. Invest.: J A NYSTUEN
 Tech. Officer: GSFC/O W THIELE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7932 UNIVERSITY OF WASHINGTON 9558
 THE COUNTERPARTS OF THE LUMINOUS, BURSTING X-RAY SOURCES IN GLOBULAR CLUSTERS - LISA98
 01/04/1999 - 01/14/2000 FY99: \$45,230 Total: \$45,230
 Prin. Invest.: S F ANDERSON
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 8089 UNIVERSITY OF WASHINGTON 9559
 SOLAR WIND/IONOSPHERIC COUPLING IN THE MASS LOADING OF THE MAGNETOSPHERE AND THE FORMATION OF THE GE
 01/28/1999 - 02/29/2000 FY99: \$72,118 Total: \$72,118
 Prin. Invest.: R M WIWNGLEE
 Tech. Officer: GSFC/D EVANS
 CASE Category: 11 - ASTRONOMY

NAG 5 8109 UNIVERSITY OF WASHINGTON 9560
 AIRBORNE IN SITU MEASUREMENTS FOR TRMM VALIDATION STUDIES AT KWAJALEIN
 02/08/1999 - 02/14/2000 FY99: \$528,844 Total: \$528,844
 Prin. Invest.: P V HOBBS
 Tech. Officer: GSFC/O W THIELE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8164 UNIVERSITY OF WASHINGTON 9561
 TOOLS TO PROBE THE OUTER COMETARY SYSTEM AND TO SIMULATE
 THE FORMATION AND EVOLUTION OF THE SOLAR
 02/08/1999 - 01/31/2000 FY99: \$150,869 Total: \$150,869
Prin. Invest.: G LAKE
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 8296 UNIVERSITY OF WASHINGTON 9562
 DYNAMICS AND THERMODYNAMICS OF THE NORTH PACIFIC OCEAN
 02/23/1999 - 02/29/2000 FY99: \$149,397 Total: \$149,397
Prin. Invest.: K KELLY
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8363 UNIVERSITY OF WASHINGTON 9563
 VALIDATION OF THE LIDAR RETRIEVAL OF AEROSOL EXTINCTION
 03/15/1999 - 03/14/2000 FY99: \$88,462 Total: \$88,462
Prin. Invest.: D S COVERT
Tech. Officer: GSFC/M MISHCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8374 UNIVERSITY OF WASHINGTON 9564
 ANALYSIS OF ASCA AND ROSAT OBSERVATIONS OF CATAclysmic VARI-
 ABLES (ADP98)
 03/03/1999 - 03/14/2000 FY99: \$20,000 Total: \$20,000
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8684 UNIVERSITY OF WASHINGTON 9565
 INVESTIGATION OF THE RELATIONSHIPS BETWEEN AEROSOL PHYSICAL
 AND CHEMICAL PROPERTIES
 07/16/1999 - 07/14/2000 FY99: \$14,641 Total: \$14,641
Prin. Invest.: D A HEGG
Tech. Officer: GSFC/M MISHCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8784 UNIVERSITY OF WASHINGTON 9566
 MOTOR PROTEINS AS SHUTTLES FOR DIRECTED TRANSPORT IN SYN-
 THETIC MATRICES
 09/27/1999 - 08/30/2000 FY99: \$72,005 Total: \$72,005
Prin. Invest.: V VOGEL
Tech. Officer: GSFC/R CROUCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 7 3 UNIVERSITY OF WASHINGTON 9567
 GRANT FOR P.I. OF THE STARDUST PROGRAM PHASE C/D
 12/30/1996 - 03/31/1999 FY99: \$0 Total: \$200,800
Prin. Invest.: D E BROWNLEE
Tech. Officer: HQ/M DAHL
CASE Category: 11 - ASTRONOMY

NAG 8 1149 UNIVERSITY OF WASHINGTON 9568
 PROTEIN CRYSTALLIZATION
 09/01/1995 - 08/31/1999 FY99: \$198,753 Total: \$802,397
Prin. Invest.: V VOGEL, P STAYTON
Tech. Officer: MSFC/M L PUSEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1150 UNIVERSITY OF WASHINGTON 9569
 RESEARCH "ELECTRIFICATION IN TROPICAL SYSTEMS"
 09/13/1995 - 09/12/1999 FY99: \$0 Total: \$117,291
Prin. Invest.: M BAKER
Tech. Officer: MSFC/H J CHRISTIAN, MSFC/R J BLAKESLEE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1277 UNIVERSITY OF WASHINGTON 9570
 THIN FILM MEDIATED PHASE CHANGE PHENOMENA
 04/26/1996 - 04/30/1998 FY99: \$0 Total: \$120,000
Prin. Invest.: J S WETTLAUFER
Tech. Officer: MSFC/D R WOODARD, MSFC/R KROES
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1424 UNIVERSITY OF WASHINGTON 9571
 R/S IMPROVING OCEANIC STORM FORECASTING AND ANALYSIS THROUGH
 ASSIMILATION OF REMOTE SENSING
 01/13/1998 - 12/31/2000 FY99: \$113,580 Total: \$223,290
Prin. Invest.: R A BROWN
Tech. Officer: MSFC/J M SIMONDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1512 UNIVERSITY OF WASHINGTON 9572
 WATER TRANSPORT TO THE UPPER TROPOSPHERE BY CONVECTIVE SYS-
 TEMS, AS INFERRED FROM GLOBAL
 04/06/1998 - 04/05/2000 FY99: \$64,253 Total: \$126,560
Prin. Invest.: M BAKER
Tech. Officer: MSFC/J R BLOCKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1602 UNIVERSITY OF WASHINGTON 9573
 APPLICATIONS OF NANO/MICROTECHNOLOGY IN SPACE SYSTEMS
 05/21/1999 - 10/30/1999 FY99: \$20,490 Total: \$20,490
Prin. Invest.: M E CAMPBELL
Tech. Officer: MSFC/D O'NEIL
CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 958 UNIVERSITY OF WASHINGTON 9574
 PERCEIVED SELF MOTION ASSESSED BY COMPUTER MADE ANIMATIONS
 11/18/1997 - 11/18/1999 FY99: \$0 Total: \$14,558
Prin. Invest.: D E PARKER
Tech. Officer: JSC/D HARM
CASE Category: 56 - MEDICAL

NAGW 1256 UNIVERSITY OF WASHINGTON 9575
 SEA ICE TYPE DISCRIMINATION USING POLARIMETRIC SYNTHETIC
 12/22/1987 - 09/30/1997 FY99: -\$4,549 Total: \$816,407
Prin. Invest.: D P WINEBRENNER
Tech. Officer: HQ/R H THOMAS, HQ/W S WILSON
CASE Category: 33 - OCEANOGRAPHY

NAGW 2407 UNIVERSITY OF WASHINGTON 9576
 POLAR EXCHANGE AT THE SEA SURFACE (POLES); THE INTERACTION OF
 OCEANS, ICE, AND ATMOSPHERE
 04/11/1991 - 09/30/1997 FY99: -\$5,051 Total: \$5,063,514
Prin. Invest.: D A ROTHROCK, S MARTIN
Tech. Officer: HQ/R H THOMAS, HQ/W S WILSON
CASE Category: 33 - OCEANOGRAPHY

NAGW 2652 UNIVERSITY OF WASHINGTON 9577
 NAGW-2652/UNIV WASHINGTON/THE REGIONAL AMAZON MODE L: SYN-
 OPTIC SCALE HYDROLOGICAL & BIOGEOCHEMICAL C
 07/25/1991 - 09/30/1997 FY99: -\$5,119 Total: \$3,793,343
Prin. Invest.: J E RICHEY
Tech. Officer: HQ/R E MURPHY, HQ/W S WILSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3755 UNIVERSITY OF WASHINGTON 9578
 PLASMADESMATA AND THE CONTROL OF GRAVITROPISM
 09/28/1993 - 09/30/1998 FY99: -\$314 Total: \$124,686
Prin. Invest.: R E CLELAND
Tech. Officer: HQ/T W HALSTEAD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 4393 UNIVERSITY OF WASHINGTON 9579
 PERCEIVED SELF-MOTION ASSESSED BY COMPUTER-MADE AN IMATIONS
 04/14/1995 - 02/14/1998 FY99: -\$763 Total: \$155,717
Prin. Invest.: D E PARKER
Tech. Officer: HQ/F SULZMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4642 UNIVERSITY OF WASHINGTON 9580
 KINEMATICS AND MECHANICS OF SEA ICE
 07/18/1995 - 05/14/1998 FY99: -\$56 Total: \$247,460
Prin. Invest.: R E MORITZ
Tech. Officer: HQ/R H THOMAS, HQ/M BALTUCK
CASE Category: 33 - OCEANOGRAPHY

NAGW 4712 UNIVERSITY OF WASHINGTON 9581
 ASSESSMENT OF REQUIRED ACCURACY OF DIGITAL ELEVATI ON DATA
 FOR HYDROLOGIC MODELING
 08/22/1995 - 12/31/1998 FY99: \$0 Total: \$187,000
Prin. Invest.: D P LETTENMAIER
Tech. Officer: HQ/M Y WEI, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 1 18940 UNIVERSITY OF WASHINGTON 9582
 SAGE III SCIENCE INVESTIGATION SUPPORT, P.I. PETER V. HOBBS
 10/27/1989 - 01/31/2005 FY99: \$64,367 Total: \$384,880
Prin. Invest.: P V HOBBS
Tech. Officer: LARC/G MADDREA
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 1 99105 UNIVERSITY OF WASHINGTON 9583
 COUPLING PICASSO-CENA TO IN SITU MEASUREMENTS FOR ESTIMATION
 OF DIRECT AEROSOL RADIATIVE FORCING
 05/17/1999 - 05/16/2001 FY99: \$8,000 Total: \$8,000
Prin. Invest.: R J CHARLSON
Tech. Officer: LARC/G GIBSON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 30613 UNIVERSITY OF WASHINGTON 9584
 INVESTIGATION DEFINITION PHASE FOR CLUSTER PLASMA SPECTROME-
 TRY
 02/21/1989 - 10/15/2000 FY99: \$793,775 Total: \$5,076,746
Prin. Invest.: G K PARKS
Tech. Officer: GSFC/J L CHRISTENSEN
CASE Category: 13 - PHYSICS

NAS 5 31372 UNIVERSITY OF WASHINGTON 9585
 INTERMEDIATE THERMAL INFRARED RADIOMETER (EOS INVESTIGATION)
 02/19/1992 - 12/14/2001 FY99: \$306,000 Total: \$2,638,000
Prin. Invest.: A R GILLESPIE
Tech. Officer: GSFC/H BLODGET
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 982 UNIVERSITY OF WASHINGTON 9586
 MODELING & SAFETY ANALYSIS OF CRAS/FMS COORDINATOR
 03/27/1997 - 02/28/1999 FY99: \$0 Total: \$120,000
Prin. Invest.: N G LEVESON
Tech. Officer: ARC/E A PALMER
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5243 UNIVERSITY OF WASHINGTON 9587
 EFFICIENT NONLINEAR CFD-BASED AEROELASTIC ANALYSIS FOR MULTI-
 PLE LOAD CASES PRELIMINARY DESIGN
 11/05/1997 - 11/30/1999 FY99: \$94,879 Total: \$187,953
Prin. Invest.: E LIVNE
Tech. Officer: ARC/G P GURUSWAMY
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5322 UNIVERSITY OF WASHINGTON 9588
 A CLINICAL EVALUATION OF COOLING THERAPY FOR MULTI PLE SCLE-
 ROSIS
 05/03/1999 - 12/31/1999 FY99: \$61,565 Total: \$61,565
Prin. Invest.: J BOWEN
Tech. Officer: ARC/B LUNA, ARC/B W WEBBON
CASE Category: 56 - MEDICL

NCC 2 5346 UNIVERSITY OF WASHINGTON 9589
 LOW-POWER FAST SOI ELECTRONICS FOR SPACE APPLICATI ONS
 08/22/1999 - 07/31/2000 FY99: \$26,000 Total: \$26,000
Prin. Invest.: M A OSMAN
Tech. Officer: ARC/B A BIEGEL, ARC/T R GOVINDAN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 5 248 UNIVERSITY OF WASHINGTON 9590
 TWO-HANDED INTERFACE IMPROVEMENTS FOR THE STEREOSC OPIC-
 FIELD ANALYZER
 10/28/1997 - 09/30/1998 FY99: -\$141 Total: \$44,032
Prin. Invest.: T FURNESS
Tech. Officer: GSFC/A ROBERTS
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 5 326 UNIVERSITY OF WASHINGTON 9591
 SUPPORT OF THE UNIVERSITY OF WASHINGTON'S RESEARCH AIRCRAFT
 FOR NASASTUDIES (PROPOSAL #111017)
 03/23/1998 - 02/29/2000 FY99: \$311,252 Total: \$611,252
Prin. Invest.: P V HOBBS
Tech. Officer: GSFC/M D KING
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 345 UNIVERSITY OF WASHINGTON 9592
 BIOGEOCHEMICAL DYNAMICS IN RIVER CORRIDORS OF THE AMAZON
 BASIN AND THEIR RESPONSE TO ANTHROPOGENIC C
 06/25/1998 - 12/31/1999 FY99: \$101,392 Total: \$187,500
Prin. Invest.: J E RICHEY
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 363 UNIVERSITY OF WASHINGTON 9593
 TWO-HANDED INTERFACE IMPROVEMENTS FOR THE STEREO SC OPIC
 ANALYZER
 09/22/1998 - 09/30/2000 FY99: \$40,823 Total: \$81,830
Prin. Invest.: T FURNESS
Tech. Officer: GSFC/A ROBERTS
CASE Category: 22 - COMPUTER SCIENCE

NGT 40011 UNIVERSITY OF WASHINGTON 9594
 NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM
 09/29/1989 - 02/28/2000 FY99: \$0 Total: \$2,513,354
Prin. Invest.: G K PARKS
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51225 UNIVERSITY OF WASHINGTON 9595
 GRADUATE STUDENT RESEARCHERS PROGRAM
 07/26/1994 - 06/30/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: M J PERRY
Tech. Officer: HQ/A NOVOTNY
CASE Category: 33 - OCEANOGRAPHY

NGT 2 52219 UNIVERSITY OF WASHINGTON 9596
 INFRARED STUDY OF HERBIG AE/BE SYSTEMS
 08/19/1996 - 08/31/2000 FY99: \$10,000 Total: \$76,000
Prin. Invest.: D BROWNLEE
Tech. Officer: ARC/D H WOODEN, ARC/F C WITTEBORN
CASE Category: 11 - ASTRONOMY

NGT 5 32 UNIVERSITY OF WASHINGTON 9597
 SIMULATION AND ANALYSIS OF AIRCRAFT NOX EMISSIONS IN THE LOWER
 STRATOSPHERE AND UPPER TROPOSPHERE
 07/24/1996 - 08/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: J R HOLTON
Tech. Officer: GSFC/G A SOFFEN, GSFC/A DOUGLAS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 66 UNIVERSITY OF WASHINGTON 9598
 COMPUTATIONAL OPTICS YEAR 1 OF 2 YEAR COMMITMENT PERIOD OF
 PERFORMANCE SEPT. 1, 1998 TO AUG. 31, 1
 05/27/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J BURKE
Tech. Officer: GSFC/G SOFFEN
CASE Category: 21 - MATHEMATICS

NGT 5 98 UNIVERSITY OF WASHINGTON 9599
 A NEW MECHANISM FOR DEGASSING AT HIGH-SULFUR VOLCANOES
 08/23/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: C NEWHALL
Tech. Officer: GSFC/M WEI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30004 UNIVERSITY OF WASHINGTON 9600
 QUANTITATIVE MESOSCALE GEOMORPHOLOGY OF THE AMAZON
 10/11/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: T DUNNE
Tech. Officer: GSFC/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30030 UNIVERSITY OF WASHINGTON 9601
 STRUCTURE, DYNAMICS, AND VARIABILITY OF THERMOCLIN WATER
 FORMATION IN THE EASTERN SUBTROPICAL NORTH
 10/17/1996 - 08/31/1999 FY99: \$0 Total: \$66,000
Prin. Invest.: L THOMPSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NGT 5 30053 UNIVERSITY OF WASHINGTON 9602
 MEASURED AND MODELED EXPORT PRODUCTION FROM THE EQ
 09/06/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: J W MURRAY
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30067 UNIVERSITY OF WASHINGTON 9603
 GLOBAL CHANGE FELLOWSHIP PROGRAM: RIDGE CREST PROC GLOBAL
 CHANGE: SYNTHESIS OF OCEANOGRAPHIC & SATEL
 09/10/1997 - 08/31/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: R MCDUFF
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30085 UNIVERSITY OF WASHINGTON 9604
 TROPICAL CLOUD FEEDBACK AND MICROPHYSICAL PROCESS
 09/09/1997 - 08/31/1998 FY99: -\$6 Total: \$21,994
Prin. Invest.: D HARTMANN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30090 UNIVERSITY OF WASHINGTON 9605
 PREDICTING THE INTERACTION OF LAND USE AND CLIMATE RESPONSE
 OF MARITIME MOUNTAINOUS WATERSHEDS
 09/11/1997 - 08/31/1998 FY99: -\$149 Total: \$21,851
Prin. Invest.: D LETTENMAIER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30094 UNIVERSITY OF WASHINGTON 9606
 PHYSICAL, CHEMICAL, AND RADIATIVE PROPERTIES OF AE BURNING IN
 BRAZIL/NASA EARTH SYSTEM SCIENCE FELLO
 09/10/1997 - 08/31/1998 FY99: \$0 Total: \$22,000
Prin. Invest.: P V HOBBS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30120 UNIVERSITY OF WASHINGTON 9607
 PREDICTING LAND SURFACE FLUXES OF FRESH WATER TO THE ARCTIC
 OCEAN ESSF RECIPIENT: SANTIAGO GASSO
 10/01/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: D LETTENMAIER *Prin. Invest.:* NONE
Tech. Officer: GSFC/M WEI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30121 UNIVERSITY OF WASHINGTON 9608
 ASSESSING THE GLOBAL CHARACTERISTICS OF AEROSOLS: WHAT IS THE
 INFLUENCE OF HUMIDITY IN COLUMNAR AERO
 10/01/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: D HEGG
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30149 UNIVERSITY OF WASHINGTON 9609
 COMBINED USE OF REMOTE SENSING AND BIOGEOCHEMICAL MODELING
 TO ESTIMATE PRIMARY PRODUCTION AND CARBO
 08/28/1998 - 08/31/2000 FY99: \$11,000 Total: \$33,000
Prin. Invest.: J E RICHEY, WILHELM
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30157 UNIVERSITY OF WASHINGTON 9610
 MODELING THE FLAMMABILITY OF BRAZILIAN AMAZON FORESTS AT THE
 FOREST-SAVANNA ECOTONE
 08/28/1998 - 03/15/2000 FY99: \$0 Total: \$22,000
Prin. Invest.: T M HINCKLEY
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30161 UNIVERSITY OF WASHINGTON 9611
 COUPLING LAND-SURFACE AND RIVERINE WATER AND CARBON CYCLES
 IN THE AMAZON BASIN: DEVELOPMENT OF A MODEL
 08/31/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J E RICHEY, MAYORGA
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30195 UNIVERSITY OF WASHINGTON 9612
 THE ARCTIC OSCILLATION SIGNATURE IN NORTHERN HEMISPHERE CLIMATE
 08/18/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J M WALLACE
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30213 UNIVERSITY OF WASHINGTON 9613
 IMPROVING MODEL PARAMETERIZATIONS OF GAS EXCHANGE: QUANTIFICATION OF BUBBLE DYNAMICS BY MEASUREMENT
 08/20/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: S R EMERSON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30220 UNIVERSITY OF WASHINGTON 9614
 OPPORTUNITIES FOR IMPROVING WESTERN WATER MANAGEMENT THROUGH REMOTE SENSING & HYDROLOGIC MODEL
 08/24/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: D P LETTENMAIER *Prin. Invest.:* NONE
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40017 UNIVERSITY OF WASHINGTON 9615
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.
 12/19/1996 - 01/31/2000 FY99: \$431,250 Total: \$1,222,566
Prin. Invest.: G K PARKS
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50078 UNIVERSITY OF WASHINGTON 9616
 NUMERICAL SIMULATION OF DAMPED LYMAN-ALPHA SYSTEMS
 08/26/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: G LAKE
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50095 UNIVERSITY OF WASHINGTON 9617
 X-RAY IMAGING OF AURORA IN COORDINATION WITH ISTP STUDENT RESEARCHERS PROGRAM/KIRSTEN R. LORENTZEN
 08/26/1997 - 08/31/1998 FY99: -\$265 Total: \$15,735
Prin. Invest.: M P MCCARTHY
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 13 - PHYSICS

NGT 8 52862 UNIVERSITY OF WASHINGTON 9618
 MODELING OF ELECTRICAL EFFECTS ON THE DYNAMICS OF SOLIDIFICATION
 07/27/1998 - 08/13/2000 FY99: \$0 Total: \$22,000
Prin. Invest.: L N BRUSH
Tech. Officer: MSFC/J F DOWDY
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 2 1198 WASHINGTON STATE UNIVERSITY 9619
 LIGNIFICATION: A NEW PARADIGM
 04/02/1998 - 09/30/1999 FY99: \$125,000 Total: \$166,667
Prin. Invest.: N G LEWIS
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 3 1387 WASHINGTON STATE UNIVERSITY 9620
 BUBBLE DYNAMICS, TWO-PHASE FLOW & BOILING HEAT TRANSFER IN A MICROGRAVITY ENVIRONMENT
 12/23/1992 - 09/14/1998 FY99: \$0 Total: \$362,233
Prin. Invest.: J N CHUNG
Tech. Officer: GRC/F P CHIARAMONTE
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1918 WASHINGTON STATE UNIVERSITY 9621
 PASSIVE OR ACTIVE RADIATION STRESS STABILIZATION OF (AND COUPLING TO) LIQUID BRIDGES & BRIDGE NETWORKS
 07/12/1996 - 07/11/2000 FY99: \$100,000 Total: \$350,000
Prin. Invest.: P L MARSTON
Tech. Officer: GRC/R SKARDA
CASE Category: 13 - PHYSICS

NAG 3 2044 WASHINGTON STATE UNIVERSITY 9622
 ZNSEXY WINDOW LAYERS FOR GAAS AND GAINP2 SOLAR CELLS
 04/29/1997 - 05/31/1999 FY99: \$0 Total: \$28,000
Prin. Invest.: L OLSEN
Tech. Officer: GRC/S G BAILEY
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2114 WASHINGTON STATE UNIVERSITY 9623
 SINGLE BUBBLE SONOLUMINESCENCE IN LOW GRAVITY AND OPTICAL RADIATION PRESSURE POSITIONING OF THE BUBBLE
 02/24/1998 - 09/30/2000 FY99: \$78,000 Total: \$130,000
Prin. Invest.: P L MARSTON, W E TORRUELLAS
Tech. Officer: GRC/N R HALL
CASE Category: 13 - PHYSICS

NAG 5 4035 WASHINGTON STATE UNIVERSITY 9624
 RECONSTRUCTION OF THREE-DIMENSIONAL SHAPE AND SPIN FROM RADAR DATA
 02/27/1997 - 03/31/2000 FY99: \$44,200 Total: \$131,225
Prin. Invest.: D HUDSON
Tech. Officer: GSFC/J G GRANT
CASE Category: 32 - GEOLOGICAL SCIENCE

NASA'S UNIVERSITY PROGRAM

WEST VIRGINIA

NAG 5 4841 **WASHINGTON STATE UNIVERSITY** **9625**
 CALCIUM/CALMODULIN-MEDIATED GRAVITROPIC RESPONSE I
 06/19/1997 - 05/31/2000 FY99: \$125,100 Total: \$287,900
Prin. Invest.: B POOVAIAH
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6153 **WASHINGTON STATE UNIVERSITY** **9626**
 NEW MEASUREMENT TECHNIQUES FOR SATELLITE AND SHUTT MEASUREMENTS
 09/08/1997 - 09/14/1998 FY99: \$0 Total: \$25,000
Prin. Invest.: G MOUNT
Tech. Officer: GSFC/E HILSEN RATH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1477 **WASHINGTON STATE UNIVERSITY** **9627**
 R/S A COMPARATIVE MODELING STUDY OF MAGNETIC AND ELECTROSTATIC LEVITATION IN MICROGRAVITY
 03/26/1998 - 01/31/2002 FY99: \$92,500 Total: \$159,167
Prin. Invest.: B Q LI
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 4636 **WASHINGTON STATE UNIVERSITY** **9628**
 RECONSTRUCTION OF THREE-DIMENSIONAL SHAPE AND SPIN STATE OF ASTEROIDS FROM RADAR DATA
 07/31/1995 - 10/31/1998 FY99: -\$7,466 Total: \$72,160
Prin. Invest.: R HUDSON
Tech. Officer: HQ/H BRINTON
CASE Category: 11 - ASTRONOMY

NCC 2 5182 **WASHINGTON STATE UNIVERSITY** **9629**
 EXAMINATION OF TRIP DISK PERFORMANCE FOR HIGH-SPEED WING MODEL TESTING
 06/26/1996 - 06/30/1998 FY99: -\$403 Total: \$79,141
Prin. Invest.: D WESTPHAL
Tech. Officer: ARC/R A KENNELLY, ARC/D M DRIVER
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 564 **WASHINGTON STATE UNIVERSITY** **9630**
 REFLIGHT OF THE SOLID SURFACE COMBUSTION EXPERIMENT WITH EMPHASIS ON FLAME RADIATION NEAR EXTINCTION
 06/17/1997 - 06/30/1999 FY99: -\$112,611 Total: \$136,389
Prin. Invest.: R A ALTENKIRCH
Tech. Officer: GRC/K R SACKSTEDER
CASE Category: 49 - ENGINEERING, OTHER

NCC 8 92 **WASHINGTON STATE UNIVERSITY** **9631**
 "STUDY OF MAGNETIC DUMPING EFFECT ON CONVECTION & SOLIDIFICATION UNDER G-JITTER CONDITIONS"
 04/19/1996 - 04/21/2000 FY99: \$90,000 Total: \$270,000
Prin. Invest.: B Q LI
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 3 52330 **WASHINGTON STATE UNIVERSITY** **9632**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 06/10/1997 - 08/15/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: P MARSTON
Tech. Officer: GRC/F J MONTEGANI
CASE Category: 13 - PHYSICS

NGT 5 50138 **WASHINGTON STATE UNIVERSITY** **9633**
 MICROGRAVITY BOILING IN AN ACOUSTIC FIELD
 09/10/1997 - 06/30/1998 FY99: -\$165 Total: \$21,835
Prin. Invest.: J N CHUNG
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8248 **WHITMAN COLLEGE** **9634**
 ORFEUS IMAPS MISSION SUPPORT
 03/09/1999 - 03/14/2000 FY99: \$31,299 Total: \$31,299
Prin. Invest.: U J SOFIA
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 8249 **WHITMAN COLLEGE** **9635**
 THE PROPERTIES OF INTERSTELLAR DUST & APPLICATIONS TO ASTROPHYSICAL PROBLEMS
 03/09/1999 - 03/14/2000 FY99: \$25,500 Total: \$25,500
Prin. Invest.: U SOFIA
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

WEST VIRGINIA

NAG 2 1194 **MARSHALL UNIVERSITY** **9636**
 CALBINDINS & APOPTOSIS AFTERSHORT TERM SPACE FLIGHT
 03/25/1998 - 05/31/2000 FY99: \$51,956 Total: \$103,026
Prin. Invest.: W B RHOTEN, I N SERGEEV
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 9 24 **UNIVERSITY OF CHARLESTON - WEST VIRGINIA** **9637**
 GRADUATE STUDENT RESEARCH PROGRAM
 06/02/1997 - 06/30/2000 FY99: \$0 Total: \$44,000
Prin. Invest.: C COOMBS, J NETTLES
Tech. Officer: JSC/D A MORRISON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 1 1892 **WEST VIRGINIA UNIVERSITY** **9638**
 INVESTIGATION OF POINT DOPPLER VELOCIMETRY (PDV) FOR TRANSITION DETECTION IN BOUNDARY LAYERS
 01/13/1997 - 01/12/1999 FY99: \$0 Total: \$89,998
Prin. Invest.: J M KUHLMAN
Tech. Officer: LARC/J F MEYERS
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 2096 **WEST VIRGINIA UNIVERSITY** **9639**
 ROLE OF TURBULENCE IN CHEMICAL AND DYNAMICAL PROCESSES IN THE NEAR-FIELD WAKE OF SUBSONIC AIRCRAFT
 09/14/1998 - 09/13/2001 FY99: \$75,000 Total: \$124,843
Prin. Invest.: R F TURCO, W S LEWELLEN
Tech. Officer: LARC/W L GROSE, LARC/B E ANDERSON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2132 **WEST VIRGINIA UNIVERSITY** **9640**
 INVESTIGATION OF POINT DOPPLER VELOCIMETRY (PDV) FOR TRANSITION DETECTION IN BOUNDARY LAYERS
 01/15/1999 - 01/12/2000 FY99: \$47,647 Total: \$47,647
Prin. Invest.: J M KUHLMAN
Tech. Officer: LARC/J F MEYERS
CASE Category: 41 - AERONAUTICAL ENGR

WEST VIRGINIA

NASA'S UNIVERSITY PROGRAM

NAG 2 1134 **WEST VIRGINIA UNIVERSITY** **9641**
 VITAL: V & V THROUGH INCONSISTENCE TRACKING & ANALYSIS"
 06/25/1997 - 11/30/1998 FY99: \$0 Total: \$99,905
 Prin. Invest.: J R CALLAHAN, S M ESTERBROOK
 Tech. Officer: ARC/M R LOWRY
 CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1158 **WEST VIRGINIA UNIVERSITY** **9642**
 AIRNET REMOTELY CONTROLLED B747 & B777 SCALE MODEL S W/O-N-
 BOARD MICROPROCESSORS-BASED NEURAL
 08/25/1997 - 12/31/1999 FY99: \$0 Total: \$150,000
 Prin. Invest.: M R NAPOLITANO
 Tech. Officer: ARC/W F BROOKS
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1921 **WEST VIRGINIA UNIVERSITY** **9643**
 MAGNETHOTERMAL CONVECTION IN NONCONDUCTING DIAMAGNETIC
 PARAMAGNETIC FLUIDS
 07/23/1996 - 06/02/1999 FY99: -\$2,486 Total: \$247,514
 Prin. Invest.: D F EDWARDS, D D GRAY
 Tech. Officer: GRC/N R HALL
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6468 **WEST VIRGINIA UNIVERSITY** **9644**
 INVESTIGATION OF THE ENERGY BALANCE OF SOLAR WIND ELECTRONS:
 ULYSSES OBSERVATIONS
 11/13/1997 - 10/31/1999 FY99: \$39,484 Total: \$73,462
 Prin. Invest.: E SCIME
 Tech. Officer: GSFC/J LING
 CASE Category: 11 - ASTRONOMY

NAG 8 1494 **WEST VIRGINIA UNIVERSITY** **9645**
 MARS ENVIRONMENTAL COMPATIBILITY ASSESSMENT
 06/11/1998 - 03/31/2002 FY99: \$69,974 Total: \$139,173
 Prin. Invest.: T MELOY
 Tech. Officer: MSFC/J POE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1496 **WEST VIRGINIA UNIVERSITY** **9646**
 TECHNOLOGY EDUCATION BIOTECHNOLOGY CURRICULUM (TBEC)
 09/23/1998 - 08/31/2000 FY99: \$48,800 Total: \$94,680
 Prin. Invest.: J G WELLS
 Tech. Officer: MSFC/D LONGEDDY
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 759 **WEST VIRGINIA UNIVERSITY** **9647**
 DETERMINATION OF STABILITY & CONTROL DERIVATIVES F O THE F/A-18
 HARV FROM FLIGHT DATA USING THE....
 05/20/1992 - 10/31/1999 FY99: \$11,042 Total: \$291,457
 Prin. Invest.: M R NAPOLITANO, J M SPAGNUOLO
 Tech. Officer: ARC/A H BOWERS
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 979 **WEST VIRGINIA UNIVERSITY** **9648**
 APPLIED RESEARCH IN SOFTWARE VERIFICATION & VALIDATION
 02/27/1997 - 10/31/1999 FY99: \$2,652,993 Total: \$7,041,996
 Prin. Invest.: J R CALLAHAN, J SHAUB, S M ESTERBROOK
 Tech. Officer: ARC/D S OZBURN, ARC/L BLAZY
 CASE Category: 49 - ENGINEERING, OTHER

NCC 2 6009 **WEST VIRGINIA UNIVERSITY** **9649**
 NASA/WWU EDUCATIONAL COLLABORATION
 05/09/1997 - 07/31/1999 FY99: \$0 Total: \$0
 Prin. Invest.: E E GOTTLIEB
 Tech. Officer: ARC/T WILSON, ARC/D OZBURN
 CASE Category: 22 - COMPUTER SCIENCE

NCC 5 406 **WEST VIRGINIA UNIVERSITY** **9650**
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/17/1999 - 06/30/2000 FY99: \$225,000 Total: \$225,000
 Prin. Invest.: M JARAIEDI
 Tech. Officer: GSFC/D DETROYE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40047 **WEST VIRGINIA UNIVERSITY** **9651**
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 07/24/1991 - 09/30/1998 FY99: -\$8,285 Total: \$995,715
 Prin. Invest.: J T JUVEWICZ
 Tech. Officer: HQ/E T SCHWARTZ
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51370 **WEST VIRGINIA UNIVERSITY** **9652**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 - 06/30/1998 FY99: -\$4,150 Total: \$61,850
 Prin. Invest.: J G WELLS
 Tech. Officer: LARC/L EVANS
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40055 **WEST VIRGINIA UNIVERSITY** **9653**
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.
 02/12/1997 - 02/28/2000 FY99: \$256,250 Total: \$717,500
 Prin. Invest.: M JARAIEDI
 Tech. Officer: GSFC/L KEFFER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50009 **WEST VIRGINIA UNIVERSITY** **9654**
 ASSESSING THE CONSEQUENCES OF OZONE DEPLETION ON EFFECTS OF
 ULTRAVIOLET-B RADIATION ON PLANT LITER Q
 02/10/1997 - 08/31/2000 FY99: \$0 Total: \$66,000
 Prin. Invest.: W T PETERJOHN
 Tech. Officer: GSFC/A NURRIDIN
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 50103 **WEST VIRGINIA UNIVERSITY** **9655**
 DEBRIS SLIDE HAZARDS IN THE CENTRAL APPALACHIANS: CONTROLLING
 FACTORS VIA LARGE SCALE SURFICIAL MAPP
 09/06/1997 - 08/31/2000 FY99: \$0 Total: \$44,000
 Prin. Invest.: S KITE
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52808 **WEST VIRGINIA UNIVERSITY** **9656**
 GRADUATE STUDENT RESEARCHERS PROGRAM
 08/23/1995 - 08/31/1999 FY99: \$0 Total: \$66,000
 Prin. Invest.: L E BANTA
 Tech. Officer: MSFC/F SIX, MSFC/S COTHREN
 CASE Category: 46 - MECHANICAL ENGR

NCC 5 71 WEST VIRGINIA WEYSLEYAN COLLEGE 9657
SPECTROSCOPIC INVESTIGATIONS ON THE FORMATION, COM POSITION,
AND PROPERTIES OF PRE-SOLAR DUST GAINS
06/01/1994 - 09/30/1999 FY99: \$0 Total: \$35,708
Prin. Invest.: P A WITHEY
Tech. Officer: GSFC/J A NUTH, GSFC/J E ALLEN
CASE Category: 11 - ASTRONOMY

NAG 5 6961 WHEELING JESUIT UNIVERSITY 9658
CLASSROOM OF THE FUTURE
02/06/1998 - 01/31/2000 FY99: \$149,943 Total: \$299,943
Prin. Invest.: R MYERS
Tech. Officer: GSFC/NKHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8628 WHEELING JESUIT UNIVERSITY 9659
EARTH SYSTEM SCIENCE EDUCATION ALLIANCE
06/24/1999 - 06/30/2000 FY99: \$190,041 Total: \$190,041
Prin. Invest.: R J MEYERS
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 2486 WHEELING JESUIT UNIVERSITY 9660
DESIGN AND CONSTRUCTION MANAGEMENT SERVICES FOR TH E CLASS-
ROOM OF THE FUTURE PROJECT
04/25/1991 - 08/31/1999 FY99: \$0 Total: \$11,000,000
Prin. Invest.: T ACKER
Tech. Officer: HQ/F DURSO
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 203 WHEELING JESUIT UNIVERSITY 9661
CLASSROOM OF THE FUTURE
06/09/1997 - 12/31/1999 FY99: \$2,000,000 Total: \$6,562,105
Prin. Invest.: D MILLER
Tech. Officer: GSFC/M PHELPS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCCW 65 WHEELING JESUIT UNIVERSITY 9662
NATIONAL TECHNOLOGY TRANSFER CENTER
11/01/1994 - 10/31/1999 FY99: \$7,464,000 Total: \$53,629,119
Prin. Invest.: L W RIVER
Tech. Officer: HQ/J ROOT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

WISCONSIN

NAG 5 1620 BELOIT COLLEGE 9663
SUPPORT OF HST AND GTO OBSERVATORIES
05/28/1991 - 10/30/1998 FY99: \$0 Total: \$386,165
Prin. Invest.: D J SCHROEDER
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 - ASTRONOMY

NAG 3 2293 LAC COURTE OREILLES OJIBWA COMMUNITY COL 9664
RENEWABLE ENERGY AND SUSTAINABLE DEVELOPMENT INSTITUTE
PROJECT
09/24/1999 - 08/30/2001 FY99: \$100,000 Total: \$100,000
Prin. Invest.: D H ANDERSON
Tech. Officer: GRC/A F HEPP
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 2 636 MARQUETTE UNIVERSITY 9665
THE EFFECT OF WEIGHTLESSNESS ON SINGLE MUSCLE FIB ER FUNCTION
IN RHESUS MONKEYS
05/17/1990 - 09/30/1999 FY99: \$0 Total: \$809,398
Prin. Invest.: R H FITTS
Tech. Officer: ARC/C M WINGET
CASE Category: 56 - MEDICL

NAG 2 1267 MARQUETTE UNIVERSITY 9666
EFFECT OF 2-G ON SINGLE MUSCLE FIBER FUNCATION IN RHESUS MON-
KEYS
09/15/1998 - 12/31/1999 FY99: \$115,095 Total: \$130,000
Prin. Invest.: R H FITTS
Tech. Officer: ARC/R E GRINDELAND, ARC/K L SOUZA
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6058 MARQUETTE UNIVERSITY 9667
"LIMB MUSCLE FUNCTION WITH UNLOADING AND AND COUNT
07/29/1997 - 03/31/1999 FY99: \$0 Total: \$143,378
Prin. Invest.: R FITTS
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 925 MARQUETTE UNIVERSITY 9668
RESEARCH/2-PHASE FLOW FOR SYSTEM COMPONENTS
01/24/1997 - 09/30/1997 FY99: \$0 Total: \$4,371
Prin. Invest.: A B DUNCAN
Tech. Officer: JSC/K M HURLBERT
CASE Category: 41 - AERONAUTICAL ENGR

NAGW 4376 MARQUETTE UNIVERSITY 9669
LIMB MUSCLE FUNCTION WITH UNLOADING AND COUNTERMEASURES
03/22/1995 - 09/30/1998 FY99: \$0 Total: \$270,427
Prin. Invest.: R H FITTS
Tech. Officer: HQ/R SULZMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAS 9 18768 MARQUETTE UNIVERSITY 9670
EFFECTS OF WEIGHTLESSNESS ON HUMAN SINGLE MUSCLE F IBER
FUNCTION FOR SLS-3
08/31/1992 - 12/31/1999 FY99: \$0 Total: \$974,542
Prin. Invest.: R H FITTS
Tech. Officer: JSC/V ELLERBEE
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 5228 MARQUETTE UNIVERSITY 9671
AAH CAGE OUT-LINK AND IN-LINK ANTENNA CHARACTERIZA TION
07/15/1997 - 07/31/1998 FY99: \$0 Total: \$22,692
Prin. Invest.: D JEUTTER
Tech. Officer: ARC/J W HINES
CASE Category: 45 - ELECTRICAL ENGR

NAG 2 956 MEDICAL COLLEGE OF WISCONSIN 9672
THE EFFECTS OF MICROGRAVITY ON NEUROMUSCULAR DEVEL OPMENT
01/20/1995 - 10/31/1999 FY99: \$260,680 Total: \$871,961
Prin. Invest.: D A RILEY
Tech. Officer: ARC/W E HINDS, ARC/D M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1318 ST. NORBERT COLLEGE 9673
 JOVE RESEARCH
 01/21/1997 - 08/31/1999 FY99: \$0 Total: \$44,468
 Prin. Invest.: D POISTER
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6744 UNIV OF WISCONSIN-EAU CLAIRE 9674
 THE SPECTRAL EVOLUTION OF GAMMA-RAY BURST
 01/12/1998 - 01/14/1999 FY99: -\$824 Total: \$5,876
 Prin. Invest.: L FORD
 Tech. Officer: GSFC/J NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 3 2242 UNIV WISCONSIN-PLATTEVILLE 9675
 SLOW CRACK GROWTH AND FATIGUE LIFE PREDICTION OF CERAMIC
 COMPONENTS SUBJECTED TO VARIABLE LOAD HIST
 03/10/1999 - 10/31/1999 FY99: \$12,000 Total: \$12,000
 Prin. Invest.: O JADAAN
 Tech. Officer: GRC/N N NEMETH
 CASE Category: 46 - MECHANICAL ENGR

NAG 1 1830 UNIVERSITY OF WISCONSIN - MADISON 9676
 CLOUD STATISTICS FOR NASA CLIMATE CHANGE MY 1/3
 04/18/1996 - 04/17/1999 FY99: \$0 Total: \$154,622
 Prin. Invest.: D WYLIE
 Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1870 UNIVERSITY OF WISCONSIN - MADISON 9677
 RADIATION BUDGET STUDIES USING CERES PATHFINDER COLLOCATED
 AVHRR AND ERBE OBSERVATIONS
 09/17/1996 - 06/30/1998 FY99: \$0 Total: \$22,720
 Prin. Invest.: S A ACKERMAN
 Tech. Officer: LARC/B A BAUM
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1968 UNIVERSITY OF WISCONSIN - MADISON 9678
 EVALUATION OF AN OPTICAL PARAMETRIC AMPLIFIER FOR USE IN A
 WATER VAPOR DIFFERENTIAL-ABSORPTION LIDAR
 09/12/1997 - 09/30/1998 FY99: \$0 Total: \$50,100
 Prin. Invest.: E W ELORANTA, P PONSARDIN
 Tech. Officer: LARC/J C BARNES, LARC/N P BARNES
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1971 UNIVERSITY OF WISCONSIN - MADISON 9679
 GEOSTATIONARY ATMOSPHERIC SOUNDER (GAS) RETRIEVAL PER-
 FORMANCE STUDIES
 09/18/1997 - 09/30/1998 FY99: \$0 Total: \$75,000
 Prin. Invest.: A L HUANG
 Tech. Officer: LARC/V S PARSONS, LARC/D E HINTON
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2073 UNIVERSITY OF WISCONSIN - MADISON 9680
 THE COLLECTION AND ANALYSIS OF HIGH SPECTRAL- RESOLUTION
 INFRARED RADIANCES AS PART OF FIRE
 05/26/1998 - 05/31/2001 FY99: \$44,000 Total: \$248,000
 Prin. Invest.: S A ACKERMAN, H RECERCOMB
 Tech. Officer: LARC/V E DELNORE, LARC/J RAPER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2162 UNIVERSITY OF WISCONSIN - MADISON 9681
 MODELING AND ANALYSIS OF SAGE CONSTITUENT MIXING IN THE LOWER
 STRATOSPHERE AND UPPER TROPOSPHERE
 03/16/1999 - 12/31/2001 FY99: \$50,000 Total: \$50,000
 Prin. Invest.: M H HITCHMAN
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2196 UNIVERSITY OF WISCONSIN - MADISON 9682
 THE CONTINUATION OF CLOUD STATISTICS FOR NASA CLIMATE CHANGE
 STUDIES (NAG-1-1830 FOLLOW-ON/NRA)
 05/21/1999 - 04/17/2001 FY99: \$28,000 Total: \$28,000
 Prin. Invest.: D P WYLIE
 Tech. Officer: LARC/V E DELNORE, LARC/J L ROPER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2209 UNIVERSITY OF WISCONSIN - MADISON 9683
 SUOMI SESSIONS, 10TH CONFERENCE ON ATMOSPHERIC RADIATION
 06/24/1999 - 09/30/1999 FY99: \$13,400 Total: \$13,400
 Prin. Invest.: S A ACKERMAN, F J FOX, W P MENZEL
 Tech. Officer: LARC/V E DELNORE, LARC/J L RAPER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 859 UNIVERSITY OF WISCONSIN - MADISON 9684
 THE O/H, S/H, & TE DISTRIBUTIONS IN THE GALACTIC PLANE
 09/23/1993 - 09/30/1998 FY99: \$0 Total: \$91,621
 Prin. Invest.: E B CHURCHWELL, J S MATHIS, NONE
 Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
 CASE Category: 11 - ASTRONOMY

NAG 2 1009 UNIVERSITY OF WISCONSIN - MADISON 9685
 FECUNDITY OF QUAIL IN SPACELAB MICROGRAVITY
 09/14/1995 - 06/30/1999 FY99: \$0 Total: \$118,654
 Prin. Invest.: B C WENTWORTH
 Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1189 UNIVERSITY OF WISCONSIN - MADISON 9686
 MOLECULAR GENETICS OF ROOT THIGMOPRESPONSIVENESS IN ARABI-
 DOPSIS THALIANA
 03/19/1998 - 09/30/1999 FY99: \$148,028 Total: \$220,028
 Prin. Invest.: P H MASSON
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1220 UNIVERSITY OF WISCONSIN - MADISON 9687
 SKELETAL MUSCLE GROWTH OF REPAIR DURING MICROGRAVITY
 05/20/1998 - 09/30/1999 FY99: \$111,088 Total: \$156,088
 Prin. Invest.: E SCHULTZ
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1336 UNIVERSITY OF WISCONSIN - MADISON 9688
 MOLECULAR CLONING & CHARACTERIZATION OF THE AGR1 GENE OF
 ARABIDOPSIS THALIANA
 07/15/1999 - 12/31/1999 FY99: \$77,668 Total: \$77,668
 Prin. Invest.: P MASSON
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1380 UNIVERSITY OF WISCONSIN - MADISON 9689
 EFFECT OF SPACE FLIGHT ON ADRENAL MEDULLARY FUNCTION
 09/01/1999 - 08/31/2000 FY99: \$90,070 Total: \$90,070
Prin. Invest.: P I LELKES
Tech. Officer: ARC/R D MACELROY, ARC/M M AVERNER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1794 UNIVERSITY OF WISCONSIN - MADISON 9690
 DETAILED MODELING AND EXPERIMENTS OF DIESEL ENGINE FLOW, COMBUSTION AND EMISSIONS
 11/13/1995 - 07/02/1999 FY99: \$0 Total: \$200,000
Prin. Invest.: R D REITZ, C J RUTLAND
Tech. Officer: GRC/M J VALCO
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1909 UNIVERSITY OF WISCONSIN - MADISON 9691
 THERMOCAPILLARY CONVECTION IN LOW PR MATERIAL UNDER SIMULATED REDUCED-GRAVITY CONDITIONS
 07/08/1996 - 06/20/2000 FY99: \$100,000 Total: \$370,000
Prin. Invest.: S KOU
Tech. Officer: GRC/B S SINGH
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 647 UNIVERSITY OF WISCONSIN - MADISON 9692
 DEVELOPMENT & FLIGHT OF WIDE FIELD IMAGING SURVEY POLARIMETER
 03/01/1988 - 12/31/1999 FY99: \$374,300 Total: \$3,639,890
Prin. Invest.: K H NORDSIECK
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 674 UNIVERSITY OF WISCONSIN - MADISON 9693
 SPATIAL HETERODYNE SPECTROMETER FOR INVESTIGATION OF INTERSTELLAR FAR ULTRAVIOLET EMISSION LINES
 11/30/1990 - 01/31/2000 FY99: \$270,000 Total: \$2,125,999
Prin. Invest.: R J REYNOLDS, NONE
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 679 UNIVERSITY OF WISCONSIN - MADISON 9694
 COSMIC X-RAY PHYSICS
 03/25/1991 - 04/30/2000 FY99: \$391,034 Total: \$3,194,189
Prin. Invest.: D MCCAMMON
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 1613 UNIVERSITY OF WISCONSIN - MADISON 9695
 GTO - HIGH SPEED PHOTOMETER
 05/23/1991 - 09/30/1999 FY99: -\$228,469 Total: \$4,987,201
Prin. Invest.: R C BLESS
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 - ASTRONOMY

NAG 5 1841 UNIVERSITY OF WISCONSIN - MADISON 9696
 X-RAY EMISSION FROM O-STARS
 12/02/1991 - 12/14/1998 FY99: -\$82 Total: \$56,830
Prin. Invest.: J P CASSINELLI
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 1852 UNIVERSITY OF WISCONSIN - MADISON 9697
 GODDARD HIGH RESOLUTION SPECTROGRAPH
 12/17/1991 - 10/31/1999 FY99: \$0 Total: \$1,096,190
Prin. Invest.: B D SAVAGE
Tech. Officer: GSFC/A SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 1893 UNIVERSITY OF WISCONSIN - MADISON 9698
 MONITORING THE RECOVERY OF PSR 0540-69 AFTER ITS GIANT GLITCH
 02/10/1992 - 09/30/1997 FY99: -\$52 Total: \$115,258
Prin. Invest.: H B OGELMAN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2601 UNIVERSITY OF WISCONSIN - MADISON 9699
 MEASUREMENT AND SCALING OF CARBON BUDGETS FOR CONTINUING BOREAL FOREST SITES
 07/19/1994 - 08/31/1998 FY99: -\$1,005 Total: \$783,708
Prin. Invest.: S T GOWER
Tech. Officer: GSFC/F G HALL, GSFC/P J SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2694 UNIVERSITY OF WISCONSIN - MADISON 9700
 COMPRESSION AND PROGRESSIVE TRANSMISSION OF DIGITAL IMAGES
 08/24/1994 - 09/30/1999 FY99: \$0 Total: \$578,837
Prin. Invest.: J W PERCIVAL
Tech. Officer: GSFC/N LAL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2705 UNIVERSITY OF WISCONSIN - MADISON 9701
 ANOMALOUS X-RAY EMISSION FROM TAU SCO TYPE B STARS
 08/24/1994 - 02/28/1999 FY99: \$0 Total: \$28,472
Prin. Invest.: J CASSINELLI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2720 UNIVERSITY OF WISCONSIN - MADISON 9702
 CONTINUING INVESTIGATION OF SINGLE-PHOTON CALORIMETERS FOR X-RAY SPECTROSCOPY
 09/08/1994 - 09/30/1999 FY99: \$0 Total: \$264,925
Prin. Invest.: D MCCAMMON
Tech. Officer: GSFC/R L KELLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 2846 UNIVERSITY OF WISCONSIN - MADISON 9703
 STATISTICAL ANALYSIS OF ATMOSPHERIC TEMPERATURE AND OZONE DATA TREND FEATURES AND COMPARISONS
 12/15/1994 - 01/14/1999 FY99: -\$26,541 Total: \$100,829
Prin. Invest.: G C REINSEL
Tech. Officer: GSFC/R D MCPETERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2854 UNIVERSITY OF WISCONSIN - MADISON 9704
 MULTI-WAVELENGTH DIAGNOSTICS OF ROTATION AND NON-SPHERICAL WINDS IN THE WOLF-RAYET STAR
 12/22/1994 - 09/30/1999 FY99: \$0 Total: \$227,999
Prin. Invest.: J P CASSINELLI
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2877 UNIVERSITY OF WISCONSIN - MADISON 9705
 SATELLITE DATA DRIVEN REAL - TIME AGRICULTURAL MANAGEMENT
 DECISION AIDS
 01/19/1995 - 01/31/1999 FY99: \$0 Total: \$841,954
Prin. Invest.: G DIAK
Tech. Officer: GSFC/F HASLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2915 UNIVERSITY OF WISCONSIN - MADISON 9706
 PRE-MAIN SEQUENCE STARS FAR FROM STAR-FORMING REGIONS
 03/17/1995 - 03/31/1998 FY99: -\$140 Total: \$15,943
Prin. Invest.: R MATHIEU
Tech. Officer: GSFC/R PETRE
CASE Category: 12 - CHEMISTRY

NAG 5 3155 UNIVERSITY OF WISCONSIN - MADISON 9707
 HOT GAS, EXPLOSIVE EVENTS, AND STRUCTURE IN THE INTERSTELLAR
 MEDIUM
 01/17/1996 - 09/30/1999 FY99: \$0 Total: \$200,470
Prin. Invest.: D P COX, NONE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3315 UNIVERSITY OF WISCONSIN - MADISON 9708
 THE VELOCITY OF WOLF-RAYET WINDS FROM IR LINE AND CONTINUUM
 OBSERVATIONS.
 07/31/1996 - 08/14/1999 FY99: \$0 Total: \$235,299
Prin. Invest.: J P CASSINE III
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3377 UNIVERSITY OF WISCONSIN - MADISON 9709
 ULTRAVIOLET INTERSTELLAR POLARIZATION AND NEW INSIGHTS INTO
 INTERSTELLAR DUST GRAINS
 09/06/1996 - 09/14/1999 FY99: \$0 Total: \$30,169
Prin. Invest.: K H NORDSIECK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3430 UNIVERSITY OF WISCONSIN - MADISON 9710
 EXPLORING ASYMMETRIES IN CIRCUMSTELLAR ENVIRONMENT THINGS
 THAT GO CLUMP IN THE LIGHT
 09/26/1996 - 09/30/1997 FY99: -\$40 Total: \$34,559
Prin. Invest.: K WOOD
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3493 UNIVERSITY OF WISCONSIN - MADISON 9711
 "EVAPOTRANSPIRATION AND SENSIBLE HEATING EVALUATED IN-SITU
 USING AN OPTIMAL ESTIMATION APPROACH
 12/30/1996 - 09/30/1999 FY99: \$0 Total: \$180,000
Prin. Invest.: G R DIAK
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3513 UNIVERSITY OF WISCONSIN - MADISON 9712
 INTEGRATING BIOGEOCHEMICAL ECOLOGICAL AND HYDROLOG DYNAMIC
 BIOSPHERE
 11/18/1996 - 11/14/2000 FY99: \$36,651 Total: \$903,971
Prin. Invest.: J A FOLEY
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3524 UNIVERSITY OF WISCONSIN - MADISON 9713
 STUDIES OF THE HOT INTERSTELLAR MEDIUM AND HALO OF STRUCTURE
 & SPECTRAL CHARACTERISTICS OF THE LOW E
 11/13/1996 - 05/14/2000 FY99: \$134,000 Total: \$292,390
Prin. Invest.: W T SANDERS, NONE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3700 UNIVERSITY OF WISCONSIN - MADISON 9714
 TARGET OF OPPORTUNITY REOBSERVATION OF AG DRACONIS
 10/24/1997 - 10/31/1998 FY99: \$0 Total: \$12,000
Prin. Invest.: C ANDERSON
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 3769 UNIVERSITY OF WISCONSIN - MADISON 9715
 NEW MATHEMATICAL METHODS FOR VARIATIONAL OBJECTIVE ESTIMA-
 TION
 02/13/1997 - 12/31/1999 FY99: \$90,000 Total: \$270,000
Prin. Invest.: G WAHBA
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3943 UNIVERSITY OF WISCONSIN - MADISON 9716
 COLLABORATIVE ANALYSIS AND VISUALIZATION OF SPACE JAVA AND
 VISAD
 03/03/1997 - 02/28/2000 FY99: \$148,000 Total: \$437,000
Prin. Invest.: D T SANDERS
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4398 UNIVERSITY OF WISCONSIN - MADISON 9717
 MODELING AND ANALYSIS OF GLOBAL AND REGIONAL CLIMATE TO
 ATMOSPHERIC HYDROLOGIC PROCESSES
 04/16/1997 - 10/31/1999 FY99: \$110,000 Total: \$330,000
Prin. Invest.: D R JOHNSON
Tech. Officer: GSFC/S SCHUBERT
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4484 UNIVERSITY OF WISCONSIN - MADISON 9718
 CO-INVESTIGATOR TO NRA-96-OSS-07 "PRECISION BALLOON OF ANISO-
 TROPY IN THE CMBR"
 05/30/1997 - 05/31/2000 FY99: \$30,000 Total: \$123,000
Prin. Invest.: P TIMBIE
Tech. Officer: GSFC/R SILVERBERG
CASE Category: 13 - PHYSICS

NAG 5 4596 UNIVERSITY OF WISCONSIN - MADISON 9719
 MOLECULAR CLONING OF THE ARABIDOPSIS THALIANA AGR
 05/16/1997 - 02/29/2000 FY99: \$61,604 Total: \$283,462
Prin. Invest.: P MASSON
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4625 UNIVERSITY OF WISCONSIN - MADISON 9720
 NATURE OF THE X-RAY SPECTRUM OF W50 ASSOCIATED WIT
 05/21/1997 - 05/31/1999 FY99: \$0 Total: \$26,092
Prin. Invest.: H OGELMAN
Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 4751 UNIVERSITY OF WISCONSIN - MADISON 9721
 CHARACTERIZING THE SPATIAL AND TEMPORAL DISTRIBUTION OF THICKNESS
 OVER THE ATLANTIC BASIN UTILIZING GOES-
 06/10/1997 - 05/31/2000 FY99: \$50,000 Total: \$150,000
Prin. Invest.: E PRINS
Tech. Officer: GSFC/B N HOLBEN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4761 UNIVERSITY OF WISCONSIN - MADISON 9722
 AN EUVE STUDY OF THE B STARS EPSILON CMA AND BETA
 10/03/1997 - 06/14/1999 FY99: \$0 Total: \$14,478
Prin. Invest.: J P CASSINELLI
Tech. Officer: GSFC/R J OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 4974 UNIVERSITY OF WISCONSIN - MADISON 9723
 THE DIURNAL CYCLE FROM HISTORICAL GEOSTATIONARY DATA
 10/03/1997 - 06/30/1999 FY99: \$0 Total: \$399,267
Prin. Invest.: F P BRETHERTON
Tech. Officer: GSFC/J DODGE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5091 UNIVERSITY OF WISCONSIN - MADISON 9724
 NUV-FUV PHOTO-POLARIMETRY OF C(1)1657A AND DUST CONTINUUM
 EMISSIONS FROM COMET HALE-BOPP
 10/23/1996 - 02/28/1999 FY99: \$0 Total: \$139,190
Prin. Invest.: W M HARRIS
Tech. Officer: GSFC/L W GURKIN
 CASE Category: 13 - PHYSICS

NAG 5 6032 UNIVERSITY OF WISCONSIN - MADISON 9725
 THE EVOLUTION OF GALAXY IMAGE STRUCTURE TO Z=3
 10/08/1997 - 10/14/2000 FY99: \$105,600 Total: \$161,600
Prin. Invest.: M BERSHADY
Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 6248 UNIVERSITY OF WISCONSIN - MADISON 9726
 PLANETARY IMAGING FOURIER TRANSFORM SPECTROMETER
 08/19/1997 - 07/31/1999 FY99: \$140,250 Total: \$337,000
Prin. Invest.: D A SROMOVSKY
Tech. Officer: GSFC/B CAMPBELL
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6342 UNIVERSITY OF WISCONSIN - MADISON 9727
 THE ISOTOPIC COMPOSITION OF IRON: A CHEMICAL FINGERPRINT
 09/15/1997 - 08/31/1999 FY99: \$0 Total: \$63,000
Prin. Invest.: B L BEARD
Tech. Officer: GSFC/J BOYCE
 CASE Category: 11 - ASTRONOMY

NAG 5 6457 UNIVERSITY OF WISCONSIN - MADISON 9728
 VALIDATION OF ASTER AND MODIS SURFACE-TEMPERATURE AND VEG-
 ETATION PRODUCTS WITH SURFACE-FLUX APPLICATIONS
 10/15/1997 - 09/30/2000 FY99: \$16,638 Total: \$416,561
Prin. Invest.: S T GOWER
Tech. Officer: GSFC/D O STARR
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6535 UNIVERSITY OF WISCONSIN - MADISON 9729
 REMOTE SENSING TEACHING AND RESEARCH IN SUPPORT OF CREATING
 A VISION FOR THE ENVIRONMENT AS A WHOLE
 10/24/1997 - 09/30/1999 FY99: \$0 Total: \$423,969
Prin. Invest.: D MACKAY
Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6546 UNIVERSITY OF WISCONSIN - MADISON 9730
 SYNOPTIC MONITORING OF THE IO TORUS: SPECTROSCOPY, DOPPLER
 IMAGERY, AND PHOTOMETRY
 10/29/1997 - 10/31/2000 FY99: \$84,047 Total: \$144,376
Prin. Invest.: F SCHERB
Tech. Officer: GSFC/R OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 6787 UNIVERSITY OF WISCONSIN - MADISON 9731
 GROUND-BASED OBSERVATION OF O I 8446 EMISSION FROM IO'S
 ATMOSPHERE
 02/06/1998 - 03/31/2000 FY99: \$90,000 Total: \$180,000
Prin. Invest.: F SCHERB
Tech. Officer: GSFC/T MORGAN
 CASE Category: 11 - ASTRONOMY

NAG 5 6788 UNIVERSITY OF WISCONSIN - MADISON 9732
 CLOUDS ON NEPTUNE: MOTIONS, EVOLUTION, STRUCTURE
 02/06/1998 - 03/31/2000 FY99: \$56,000 Total: \$146,000
Prin. Invest.: L A SROMOVSKY
Tech. Officer: GSFC/T MORGAN
 CASE Category: 11 - ASTRONOMY

NAG 5 6833 UNIVERSITY OF WISCONSIN - MADISON 9733
 THE MEASUREMENT OF VACUUM ULTRAVIOLET ATOMIC TRANSITION
 PROBABILITIES OF ASTROPHYSICAL INTEREST
 01/07/1998 - 12/31/1999 FY99: \$90,000 Total: \$180,000
Prin. Invest.: J LAWLER
Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 6993 UNIVERSITY OF WISCONSIN - MADISON 9734
 ASCA PROPOSAL - DETERMINING THE COMPOSITION OF THE VELA JET,
 PART 2A HIGH RESO
 02/06/1998 - 02/14/2000 FY99: \$0 Total: \$17,400
Prin. Invest.: C MARKWARDT
Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 7026 UNIVERSITY OF WISCONSIN - MADISON 9735
 AN ULTRA-LOW BANDWIDTH DIGITAL IMAGING SYSTEM FOR SPACECRAFT
 02/26/1998 - 09/30/2000 FY99: \$75,000 Total: \$138,000
Prin. Invest.: J W PERCIVAL
Tech. Officer: GSFC/R SPAGNUOLO
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 7101 UNIVERSITY OF WISCONSIN - MADISON 9736
 A SALT PILL ENGINEERING MODEL AND ADIABATIC DEMAGNETIZATION REFRIGERATOR (ADR) DESIGN
 03/13/1998 - 03/31/1999 FY99: \$0 Total: \$300,000
 Prin. Invest.: D MCCAMMON
 Tech. Officer: GSFC/R KELLEY
 CASE Category: 13 - PHYSICS

NAG 5 7192 UNIVERSITY OF WISCONSIN - MADISON 9737
 ENHANCEMENTS TO THE GOES ARCHIVE
 03/23/1998 - 03/31/2000 FY99: \$66,701 Total: \$132,561
 Prin. Invest.: F BRETHERTON
 Tech. Officer: GSFC/J DODGE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7214 UNIVERSITY OF WISCONSIN - MADISON 9738
 PRESIDENTIAL EARLY CAREER AWARD FOR SCIENTISTS AND ENGINEERS
 04/06/1998 - 04/30/2001 FY99: \$66,666 Total: \$166,666
 Prin. Invest.: J FOLEY
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7298 UNIVERSITY OF WISCONSIN - MADISON 9739
 CARBON BUDGETS FOR BOREAS AND OTHER BOREAL FORESTS : TOWARDS A BETTER UNDERSTANDING OF FACTORS IN
 04/24/1998 - 04/30/2000 FY99: \$42,246 Total: \$130,245
 Prin. Invest.: S T GOWER
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7418 UNIVERSITY OF WISCONSIN - MADISON 9740
 SPECTRAL AND RADIOMETRIC CALIBRATION OF THE IMG FOR ADEOS: CHARACTERIZATION AND VALIDATION
 06/02/1998 - 05/31/2000 FY99: \$153,018 Total: \$193,018
 Prin. Invest.: H E REVERCOMB
 Tech. Officer: GSFC/O W THIELE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7444 UNIVERSITY OF WISCONSIN - MADISON 9741
 A COMPREHENSIVE INVESTIGATION OF THE STRUCTURING OF THE INTERSTELLAR MEDIUM BY MASSIVE STARS - I
 06/09/1998 - 06/14/2000 FY99: \$30,000 Total: \$60,000
 Prin. Invest.: B P WAKKER
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7572 UNIVERSITY OF WISCONSIN - MADISON 9742
 "A STUDY OF ATMOSPHERIC SCATTERING CONTRIBUTIONS TO GLAS LIDAR RETURNS FROM THE EARTH'S SURFACE"
 07/24/1998 - 09/30/1999 FY99: \$70,000 Total: \$80,000
 Prin. Invest.: E W ELORANTA
 Tech. Officer: GSFC/J D SPINHIRNE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7605 UNIVERSITY OF WISCONSIN - MADISON 9743
 CRITICAL REVIEW OF CHINESE RESEARCH ON THE SOLAR INFLUENCES ON CLIMATE
 07/22/1998 - 07/31/2001 FY99: \$72,799 Total: \$142,371
 Prin. Invest.: P WANG
 Tech. Officer: GSFC/D EVANS
 CASE Category: 11 - ASTRONOMY

NAG 5 7626 UNIVERSITY OF WISCONSIN - MADISON 9744
 ANALYSIS OF THE IUE SPECTRA OBTAINED DURING THE SH OMAKER/LEVY ENCOUNTER
 08/03/1998 - 09/30/1999 FY99: \$0 Total: \$62,665
 Prin. Invest.: D M HARRIS
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7661 UNIVERSITY OF WISCONSIN - MADISON 9745
 A STUDY OF UNCERTAINTIES FOR MODIS CLOUD RETRIEVALS OF OPTICAL THICKNESS AND EFFECTIVE RADIUS
 09/02/1998 - 09/30/2000 FY99: \$4,558 Total: \$60,609
 Prin. Invest.: D PINCUS Prin. Invest.: NONE
 Tech. Officer: GSFC/D STARR
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7931 UNIVERSITY OF WISCONSIN - MADISON 9746
 PHYSICS OF AN UNSTABLE WIND FROM THE UNSTABLE STAR P CYGNI ADP-98
 12/14/1998 - 12/14/1999 FY99: \$61,000 Total: \$61,000
 Prin. Invest.: K H NORDSIECK
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7952 UNIVERSITY OF WISCONSIN - MADISON 9747
 INTEGRATED STUDIES OF COMET C/199501 (HALE-BOPP) USING THE RESULTS OF THE UNIV W/GSFC OBSERVATION CAMP
 12/17/1998 - 12/31/1999 FY99: \$91,212 Total: \$91,212
 Prin. Invest.: D M HARRIS
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 8057 UNIVERSITY OF WISCONSIN - MADISON 9748
 INTERPRETATION OF RADIATIVE ENERGY FLUXES IN JUPITER'S ATMOSPHERE
 01/15/1999 - 01/31/2000 FY99: \$61,202 Total: \$61,202
 Prin. Invest.: L A SROMOVSKY
 Tech. Officer: GSFC/R BEEBE
 CASE Category: 11 - ASTRONOMY

NAG 5 8069 UNIVERSITY OF WISCONSIN - MADISON 9749
 BIGFOOT—CHARACTERIZING LAND COVER, LAI AND NPP AT THE LANDSCAPE SCALE FOR EOS/MODIS VALIDATION
 01/28/1999 - 12/31/1999 FY99: \$177,340 Total: \$177,340
 Prin. Invest.: S T GOWER
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8250 UNIVERSITY OF WISCONSIN - MADISON 9750
 TO CONSTRUCT AN EOS DIRECT BROADCAST RECEPTION FACILITY AT THE UNIVERSITY OF WISCONSIN-MADISON
 02/10/1999 - 02/14/2000 FY99: \$350,750 Total: \$350,750
 Prin. Invest.: R J FOX
 Tech. Officer: GSFC/J DODGE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8280 UNIVERSITY OF WISCONSIN - MADISON 9751
 THE HISTORY AND INITIAL MASS FUNCTION OF THE LAMBDA A ORIONIS
 STAR FORMING REGION(ADP 98)
 04/15/1999 - 02/29/2000 FY99: \$56,505 Total: \$56,505
Prin. Invest.: R D MATHIEU
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8333 UNIVERSITY OF WISCONSIN - MADISON 9752
 X-RAY OBSERVATIONS OF INTRIGUING NOVAE (ADP98)
 03/02/1999 - 02/29/2000 FY99: \$29,190 Total: \$29,190
Prin. Invest.: H B OGELMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8417 UNIVERSITY OF WISCONSIN - MADISON 9753
 THEORETICAL STUDIES OF THE DIFFUSE INTERSTELLAR MEDIUM (ATP 98)
 03/25/1999 - 03/31/2000 FY99: \$90,100 Total: \$90,100
Prin. Invest.: D P COX
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 8537 UNIVERSITY OF WISCONSIN - MADISON 9754
 X-RAY DETECTORS FOR SPECTROSCOPY OF 0.1-0.3 KEV EXTENDED
 SOURCES WITH SUB-EV RESOLUTION.
 07/09/1999 - 07/14/2000 FY99: \$144,616 Total: \$144,616
Prin. Invest.: D MCCAMMON *Prin. Invest.:* NONE
Tech. Officer: GSFC/G MUCKLOW
CASE Category: 13 - PHYSICS

NAG 5 8554 UNIVERSITY OF WISCONSIN - MADISON 9755
 LONG-TERM WATER FLUX CHANGES FROM CONVERTING OLD- GROWTH
 PINE FOREST TO HARDWOOD FORESTS IN NORTH
 06/17/1999 - 06/30/2000 FY99: \$83,750 Total: \$83,750
Prin. Invest.: D MACKAY
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8588 UNIVERSITY OF WISCONSIN - MADISON 9756
 A LOW COST ATTITUDE DETERMINATION SYSTEM & IMAGER WITH
 EMBEDDED COMPRESSION.
 07/09/1999 - 07/14/2000 FY99: \$299,328 Total: \$299,328
Prin. Invest.: J W PERCIVAL
Tech. Officer: GSFC/G MUCKLOW
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 8597 UNIVERSITY OF WISCONSIN - MADISON 9757
 THE ROLE OF LAND USE AND LAND COVER CHANGE ON THE TERRES-
 TRIAL WATER BALANCE OF THE MISSISSIPPI BASIN
 06/11/1999 - 06/30/2000 FY99: \$73,700 Total: \$73,700
Prin. Invest.: J A FOLEY
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8625 UNIVERSITY OF WISCONSIN - MADISON 9758
 DOCUMENTING, UNDERSTANDING, AND PREDICTING THE AGGREGATE
 SURFACE RADIATION FLUXES FOR SHEBA
 08/31/1999 - 06/14/2000 FY99: \$75,911 Total: \$75,911
Prin. Invest.: J R KEY
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 8639 UNIVERSITY OF WISCONSIN - MADISON 9759
 SIMPLE MODELS OF THE SPATIAL DISTRIBUTION OF CLOUD RADIATIVE
 PROPERTIES FOR REMOTE SENSING STUDIES
 06/29/1999 - 06/30/2000 FY99: \$47,000 Total: \$47,000
Prin. Invest.: R PINCUS
Tech. Officer: GSFC/W WISCOMBE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 8652 UNIVERSITY OF WISCONSIN - MADISON 9760
 CONTINUING INVESTIGATION OF SINGLE-PHOTON CALORIMETERS FOR
 X-RAY SPECTROSCOPY
 08/19/1999 - 09/30/2000 FY99: \$100,000 Total: \$100,000
Prin. Invest.: D MCCAMMON
Tech. Officer: GSFC/R L KELLEY
CASE Category: 11 - ASTRONOMY

NAG 8 1278 UNIVERSITY OF WISCONSIN - MADISON 9761
 ANALYSIS OF CONTAINERLESS PROCESSING & UNDERCOOLED SOLIDI-
 FICATION MICROSTRUCTURES
 04/22/1996 - 04/21/2000 FY99: \$100,000 Total: \$300,000
Prin. Invest.: J H PEREPEZKO
Tech. Officer: MSFC/D R WOODARD, MSFC/R W ALLEN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1320 UNIVERSITY OF WISCONSIN - MADISON 9762
 RESEARCH DEVELOPMENT OF ATMOSPHERIC PHYSICAL RETRIEVAL
 METHODOLOGIES USING SATELLITE DATA
 01/31/1997 - 01/31/2000 FY99: \$50,000 Total: \$150,000
Prin. Invest.: G DIAK
Tech. Officer: MSFC/F R ROBERTSON, MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1459 UNIVERSITY OF WISCONSIN - MADISON 9763
 R/S PHYSICAL SIMULATION OF MARANGONI CONVECTION IN WELD POOLS
 02/01/1998 - 01/31/2002 FY99: \$91,834 Total: \$155,167
Prin. Invest.: S KOU
Tech. Officer: MSFC/P M DOTY
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 8 1460 UNIVERSITY OF WISCONSIN - MADISON 9764
 R/S DYNAMIC REDUCTION AND THE CREATION OF FINE GRAINED
 CERAMICS FROM INVISCID MELTS
 02/01/1998 - 01/31/2002 FY99: \$80,000 Total: \$146,667
Prin. Invest.: R F COOPER
Tech. Officer: MSFC/C TALLEY
CASE Category: 13 - PHYSICS

NAG 9 953 UNIVERSITY OF WISCONSIN - MADISON 9765
 INVESTIGATION OF MIR LIFE ASSESSMENT
 07/23/1997 - 07/31/1999 FY99: \$0 Total: \$60,260
Prin. Invest.: D C KAMMER
Tech. Officer: JSC/J D DAGEN
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 9 1008 UNIVERSITY OF WISCONSIN - MADISON 9766
 CONTROL-CREW NETWORK COMMUNICATIONS DURING ROUTINE AND
 NON-ROUTINE EVENTS
 05/01/1998 - 06/30/2000 FY99: \$152,058 Total: \$244,416
Prin. Invest.: B S CALDWELL
Tech. Officer: JSC/J DETROVE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1039 UNIVERSITY OF WISCONSIN - MADISON 9767
 MEASUREMENT OF BODY COMPOSITION FOR NUTRITIONAL ASSESSMENT
 IN MICROGRAVITY
 06/13/1998 - 07/15/2000 FY99: \$102,588 Total: \$150,588
Prin. Invest.: D SCHOELLER
Tech. Officer: KSC/C LLYOD
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 3877 UNIVERSITY OF WISCONSIN - MADISON 9768
 NAGW-3877/B UNIV. WISC MADISON "ACCRET. DISKS & PL. ANET. SYSTE. IN
 NEWLY FORMED, MASSIVE STARS."
 02/28/1994 - 09/30/1998 FY99: \$0 Total: \$235,685
Prin. Invest.: E CHURCHWELL
Tech. Officer: HQ/J H RAHE
 CASE Category: 11 - ASTRONOMY

NAGW 3895 UNIVERSITY OF WISCONSIN - MADISON 9769
 UNIV WISC.; PARADISE - A PARALLEL INFORMATION SYST EM FOR EOSDIS
 03/31/1994 - 09/30/1997 FY99: -\$175 Total: \$459,796
Prin. Invest.: D J DEWITT
Tech. Officer: HQ/G H MUCKLOW, HQ/J H BREDEKAMP
 CASE Category: 22 - COMPUTER SCIENCE

NAGW 4273 UNIVERSITY OF WISCONSIN - MADISON 9770
 THE TEST AND EVALUATION OF UV DETECTORS
 02/20/1995 - 12/31/1997 FY99: -\$1,386 Total: \$40,614
Prin. Invest.: C L JOSEPH
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
 CASE Category: 11 - ASTRONOMY

NAG10 206 UNIVERSITY OF WISCONSIN - MADISON 9771
 COLLABORATIVE UKRAINIAN EXPERIMENT (CUE) EDUCATION PROJECT
 03/31/1997 - 09/30/1998 FY99: \$0 Total: \$240,243
Prin. Invest.: P WILLIAMS
Tech. Officer: KSC/W M KNOTT
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG13 99008 UNIVERSITY OF WISCONSIN - MADISON 9772
 MIDWEST CENTER FOR NATURAL RESOURCE MGMT SAME
 03/03/1999 - 03/02/2000 FY99: \$1,500,000 Total: \$1,500,000
Prin. Invest.: G DIAK
Tech. Officer: SSC/C HILL
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 1 96004 UNIVERSITY OF WISCONSIN - MADISON 9773
 IDIQ FOR SATELLITE DATA/SITE LICENSE
 05/01/1996 - 04/29/2001 FY99: \$102,183 Total: \$235,263
Prin. Invest.: N APPLICABLE
Tech. Officer: LARC/R C HUFFMAN, JR., LARC/P MINNIS
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 96030 UNIVERSITY OF WISCONSIN - MADISON 9774
 CLIMATOLOGICAL AND MODELING SAGE DATA
 06/20/1996 - 06/19/1999 FY99: \$11,077 Total: \$304,077
Prin. Invest.: M H HITCHMAN
Tech. Officer: LARC/G L MADDREA
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 99106 UNIVERSITY OF WISCONSIN - MADISON 9775
 ANALYSIS OF COMBINED PICASSO-CENA AND MODIS DATA
 05/17/1999 - 05/16/2001 FY99: \$8,000 Total: \$8,000
Prin. Invest.: S A ACKERMAN
Tech. Officer: LARC/G GIBSON
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 99117 UNIVERSITY OF WISCONSIN - MADISON 9776
 RESEARCH SUPPORT FOR GIFTS PROGRAM
 05/11/1999 - 09/30/1999 FY99: \$186,000 Total: \$186,000
Prin. Invest.: H REVERCOMB, F BEST, A HUANG
Tech. Officer: LARC/V S PARSON, LARC/F W HARRISON
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 99123 UNIVERSITY OF WISCONSIN - MADISON 9777
 ENGINEERING & SCIENTIFIC SUPPORT FOR THE NATIONAL- POLAR-OR-
 BITING OPERATIONAL ENVIRON SATELLITE SYS
 07/19/1999 - 12/31/1999 FY99: \$271,478 Total: \$271,478
Prin. Invest.: H E REVERCOMB
Tech. Officer: LARC/V S PARSONS
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 30131 UNIVERSITY OF WISCONSIN - MADISON 9778
 SPACE TELESCOPE IMAGINE SPECTROGRAPH SUPPORT
 09/22/1987 - 09/30/2001 FY99: \$167,000 Total: \$963,954
Prin. Invest.: F ROESLER
Tech. Officer: GSFC/H D VITAGLIANO
 CASE Category: 11 - ASTRONOMY

NAS 5 31367 UNIVERSITY OF WISCONSIN - MADISON 9779
 EOS STUDY
 12/30/1991 - 12/14/2001 FY99: \$844,400 Total: \$3,918,845
Prin. Invest.: P MENZEL
Tech. Officer: GSFC/D TOLL, GSFC/B CONBOY
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31375 UNIVERSITY OF WISCONSIN - MADISON 9780
 EOS AIRS INVESTIGATION
 01/13/1992 - 12/14/2001 FY99: \$380,000 Total: \$1,862,889
Prin. Invest.: H REVERCOMB
Tech. Officer: GSFC/E KREINS
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31377 UNIVERSITY OF WISCONSIN - MADISON 9781
 EOS INVESTIGATION: ALGORITHM DEVELOPMENT WITH HIS/ AIRS
 01/08/1992 - 12/14/2001 FY99: \$210,000 Total: \$1,578,640
Prin. Invest.: W L SMITH
Tech. Officer: GSFC/E KREINS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 33015 UNIVERSITY OF WISCONSIN - MADISON 9782
 GLRS SCIENCE TEAM MEMBER STUDY
 11/01/1989 - 11/30/1998 FY99: \$0 Total: \$531,119
Prin. Invest.: C BENTLEY
Tech. Officer: GSFC/G SOFFEN
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 99004 UNIVERSITY OF WISCONSIN - MADISON 9783
 GLAS SCIENCE TEAM LEADER
 11/25/1998 - 11/30/2004 FY99: \$94,000 Total: \$94,000
Prin. Invest.: C BENTLEY
Tech. Officer: GSFC/G SMITH
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS13 98007 UNIVERSITY OF WISCONSIN - MADISON 9784
 PROVIDE ALL RESOURCES NECESSARY TO FURNISH SCIENTIFIC DATA
 PRODUCT/SET
 12/04/1997 - 06/02/1998 FY99: \$0 Total: \$143,227
Prin. Invest.: J T YOUNG
Tech. Officer: SSC/K WITCHER
 CASE Category: 22 - COMPUTER SCIENCE

NCC 2 542 UNIVERSITY OF WISCONSIN - MADISON 9785
 PSYCHOPHYSICAL EVALUATION OF THREE-DIMENSIONAL AUDITORY DISPLAYS
 05/01/1988 - 03/31/2000 FY99: \$174,993 Total: \$1,583,828
Prin. Invest.: F L WIGHTMAN
Tech. Officer: ARC/E M WENZEL
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 5260 UNIVERSITY OF WISCONSIN - MADISON 9786
 STUDY OF MEMORY SYSTEM PERFORMANCE FOR FLUID FLOW POST-PROCESSING TOOLS
 03/17/1998 - 10/31/1999 FY99: \$16,650 Total: \$66,630
Prin. Invest.: P CAO
Tech. Officer: ARC/M GERALD-YAMASAKI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5323 UNIVERSITY OF WISCONSIN - MADISON 9787
 TOWARDS A COMMON SERVICE SPECIFICATION & MATCHMAKING FRAMEWORK FOR GRID APPLICATIONS
 05/07/1999 - 10/31/1999 FY99: \$20,000 Total: \$20,000
Prin. Invest.: M LIVNY
Tech. Officer: ARC/W E JOHNSTON, ARC/G F MORELLO
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 294 UNIVERSITY OF WISCONSIN - MADISON 9788
 HIGH RESOLUTION CARBON EXCHANGE OVER LARGE-SCALE AMAZONIA BASED ON MODELING AND GOES SATELLITE
 06/10/1998 - 12/31/1999 FY99: \$31,738 Total: \$63,638
Prin. Invest.: J M NORMAN
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 335 UNIVERSITY OF WISCONSIN - MADISON 9789
 THE EFFECTS OF TROPICAL FOREST CONVERSION: ECOLOGICAL RESEARCH IN THE LARGE-SCALE BIOSPHERE-ATMOSPHERE
 06/16/1998 - 12/31/1999 FY99: \$12,820 Total: \$41,055
Prin. Invest.: J FOLEY
Tech. Officer: GSFC/D DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 354 UNIVERSITY OF WISCONSIN - MADISON 9790
 "GSFC COOPERATIVE GRADUATE RESEARCH ASSISTANTSHIPS"
 08/04/1998 - 08/31/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: M H HITCHMAN
Tech. Officer: GSFC/A J NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 365 UNIVERSITY OF WISCONSIN - MADISON 9791
 MODELING WETLANDS AND THEIR ROLE IN HYDROLOGICAL AND BIOGEOCHEMICAL CYCLES
 09/24/1998 - 09/30/2000 FY99: \$25,000 Total: \$50,033
Prin. Invest.: J A FOLEY
Tech. Officer: HQ/L TRAVIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 8 129 UNIVERSITY OF WISCONSIN - MADISON 9792
 R/S "CONTINUATION SUPPORT FOR WISCONSIN CENTER FOR SPACE AUTHORIZATION & ROBOTICS"
 01/30/1997 - 08/31/2000 FY99: \$1,518,995 Total: \$4,679,895
Prin. Invest.: N A DUFFIE, J R BULA
Tech. Officer: MSFC/S J LAMBING
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 8 165 UNIVERSITY OF WISCONSIN - MADISON 9793
 X-RAY DIFFRACTION ANALYSES OF SEMICONDUCTOR MATERIALS
 01/11/1999 - 01/10/2000 FY99: \$15,000 Total: \$15,000
Prin. Invest.: R J MATYI
Tech. Officer: MSFC/C H SU
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 13 17 UNIVERSITY OF WISCONSIN - MADISON 9794
 VISITING INVESTIGATOR PROGRAM SANE
 09/27/1996 - 12/31/1999 FY99: \$181,250 Total: \$475,000
Prin. Invest.: T M LILLENSAND
Tech. Officer: SSC/H CARR
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 2 52227 UNIVERSITY OF WISCONSIN - MADISON 9795
 EXPERIMENT MANAGEMENT SUPPORT FOR PERFORMANCE TUNING LARGE-SCALE PARALLEL & DISTRIBUTED APPLICATION
 08/04/1997 - 07/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: B P MILLER
Tech. Officer: ARC/C H SCHULBACH
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 46 UNIVERSITY OF WISCONSIN - MADISON 9796
 PRECISE MEASUREMENT OF COSMOLOGICAL PARAMETERS VIA COSMIC MICROWAVE BACKGROUND ANISOTROPY
 06/23/1997 - 06/30/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: P TIMBIE
Tech. Officer: GSFC/M S BURRELL
CASE Category: 11 - ASTRONOMY

NGT 5 70 UNIVERSITY OF WISCONSIN - MADISON 9797
 THE X-RAY QUANTUM CALORIMETER: HIGH RESOLUTION SPECTROSCOPY FOR ASTROPHYSICAL X-RAY OBSERVATIONS
 06/04/1998 - 06/30/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: D MCCAMMON
Tech. Officer: GSFC/M S BURRELL
CASE Category: 13 - PHYSICS

NGT 5 30037 UNIVERSITY OF WISCONSIN - MADISON 9798
 ASSIMILATION OF SPACEBORNE PASSIVE MICROWAVE MEASUREMENT CLOUD MODEL FOR IMPROVING PRECIPITATION RETRIEVAL
 10/17/1996 - 02/29/2000 FY99: \$0 Total: \$66,000
Prin. Invest.: G TRIPOLI
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30119 UNIVERSITY OF WISCONSIN - MADISON 9799
 EVALUATING THE ROLE OF LAND USE IN THE TERRESTRIAL BIOSPHERE OVER THE LAST CENTURY-ESSF RECIPIENT: NA
 10/01/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: J FOLEY
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30146 UNIVERSITY OF WISCONSIN - MADISON 9800
 POROELASTIC ANALYSIS OF COSEISMIC AND POSTSEISMIC DEFORMATION ASSOCIATED WITH THE 1992 LANDERS, CALIF
 08/31/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: H F WANG
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30160 UNIVERSITY OF WISCONSIN - MADISON 9801
 SCALE-DEPENDENT CLIMATE CHANGE DUE TO DEFORESTATION IN AMAZONIA
 08/31/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: W BRINKMANN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30176 UNIVERSITY OF WISCONSIN - MADISON 9802
 EFFECTS OF LOGGING ACTIVITY ON BIOPHYSICAL PROCESSES AND CARBON CYCLING WITHIN CANADIAN BOREAL FOREST
 08/12/1999 - 08/31/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: J FOLEY
Tech. Officer: GSFC/L SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50039 UNIVERSITY OF WISCONSIN - MADISON 9803
 NEW COSMOLOGICAL PROBE: POLARIZATION OF THE COSMIC
 08/04/1997 - 08/31/1999 FY99: \$0 Total: \$57,667
Prin. Invest.: TIMBIE
Tech. Officer: HQ/A N NURRIDDEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50053 UNIVERSITY OF WISCONSIN - MADISON 9804
 DYNAMIC REDUCTION AND RELATED CRYSTALLINE NUCLEA
 07/18/1997 - 06/30/1998 FY99: -\$5,257 Total: \$16,743
Prin. Invest.: R COOPER
Tech. Officer: GSFC/A NURRIDDEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50121 UNIVERSITY OF WISCONSIN - MADISON 9805
 DUSTY PLASMAS IN GALACTIC HALOS
 09/10/1997 - 07/31/1999 FY99: \$0 Total: \$44,000
Prin. Invest.: B D SAVAGE
Tech. Officer: HQ/A NURRIDDEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50160 UNIVERSITY OF WISCONSIN - MADISON 9806
 ESTIMATING NET PRIMARY PRODUCTIVITY ALONG A RESOURCE AVAILABILITY GRADIENT USING NDVI IN A BLACK SP
 10/02/1997 - 08/31/2000 FY99: \$22,000 Total: \$66,000
Prin. Invest.: S GOWER
Tech. Officer: HQ/A NURRIDDEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50185 UNIVERSITY OF WISCONSIN - MADISON 9807
 PRECISION MEASUREMENTS OF THE POLARIZATION OF THE COSMIC MICROWAVE BACKGROUND RADIATION
 05/27/1998 - 08/31/2000 FY99: \$22,000 Total: \$44,000
Prin. Invest.: P TIMBIE
Tech. Officer: HQ/A NURRIDDEN
CASE Category: 13 - PHYSICS

NGT 8 52865 UNIVERSITY OF WISCONSIN - MADISON 9808
 PARAMETERIZATION AND SCALE ISSUES ASSOCIATED WITH MACROSCALE WATERSHED MODELING
 07/27/1998 - 08/13/2001 FY99: \$22,000 Total: \$44,000
Prin. Invest.: J F CRUISE
Tech. Officer: MSFC/J F DOWDY
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 651 UNIVERSITY OF WISCONSIN - MILWAUKEE 9809
 NEUROENDOCRINE ORGANOID ASSEMBLY IN VITRO
 10/28/1992 - 02/28/1999 FY99: \$0 Total: \$711,000
Prin. Invest.: P ILELKES
Tech. Officer: JSC/G SPAULDING
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 1 260 UNIVERSITY OF WISCONSIN - MILWAUKEE 9810
 MESON CONTRIBUTION TO SPACE RADIATIONS MESON CONTRIBUTION TO SPACE RADIATIONS
 06/13/1997 - 08/30/1999 FY99: -\$366 Total: \$72,006
Prin. Invest.: J W NORBURY
Tech. Officer: LARC/F A CUCINOTTA, LARC/J W WILSON
CASE Category: 13 - PHYSICS

NCC 1 354 UNIVERSITY OF WISCONSIN - MILWAUKEE 9811
 PION PRODUCTION CROSS SECTIONS
 08/02/1999 - 06/26/2002 FY99: \$30,671 Total: \$30,671
Prin. Invest.: J W NORBURY
Tech. Officer: LARC/R C SINGLETERRY, JR., LARC/J W WILSON
CASE Category: 13 - PHYSICS

NCC 3 600 UNIVERSITY OF WISCONSIN - MILWAUKEE 9812
 COMPUTATIONAL MODELING OF CRYSTAL GROWTH INCLUDING THERMOSOLUTAL MELT CONVECTION FOR MEPHISTO-4
 03/02/1998 - 07/24/1999 FY99: \$39,993 Total: \$88,964
Prin. Invest.: S V GARIMELLA, H C DEGRON
Tech. Officer: GRC/W M FOSTER
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 8 173 UNIVERSITY OF WISCONSIN - MILWAUKEE 9813
 PC12 PHEOCHROMOCYTOMA CELLS: A PROVEN MODEL SYSTEM FOR OPTIMIZING 3-D CELL CULTURE
 03/01/1999 - 11/30/2002 FY99: \$148,000 Total: \$148,000
Prin. Invest.: P ILELKES
Tech. Officer: MSFC/B GUYNES
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 1 52217 UNIVERSITY OF WISCONSIN - MILWAUKEE 9814
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/01/1999 - 06/30/2000 FY99: \$22,000 Total: \$22,000
Prin. Invest.: S R BLATTNING, J W NORBURY
Tech. Officer: LARC/R C SINGLETERRY, JR., WE/J W WILSON
CASE Category: 13 - PHYSICS

NGT 5 40039 UNIVERSITY OF WISCONSIN - MILWAUKEE 9815
 THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 01/29/1997 - 02/28/2000 FY99: \$281,250 Total: \$775,423
Prin. Invest.: G T MOORE
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1210 UNIVERSITY OF WISCONSIN @ WHITEWATER 9816
 JOVE
 09/05/1995 - 08/31/1999 FY99: \$13,350 Total: \$74,350
Prin. Invest.: D PHANORD
Tech. Officer: MSFC/D SIX
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4108 UNIVERSITY OF WISCONSIN-OSHKOSH 9817
 REMOTE SENSING OF PHYTOPLANKTON PRODUCTION IN THE SOUTHERN OCEAN
 04/01/1997 - 03/31/2000 FY99: \$38,293 Total: \$79,528
Prin. Invest.: M P LIZOTTE
Tech. Officer: GSFC/K R ARRIGO
CASE Category: 33 - OCEANOGRAPHY

WYOMING

NAG 1 1294 UNIVERSITY OF WYOMING 9818
 MECHANICAL PROPERTIES EVALUATIONS OF NEW THERMOPLASTIC AND THERMOSET POLYMER MATRICES AND COMPOSITE
 07/11/1991 - 02/28/1999 FY99: -\$1 Total: \$263,506
Prin. Invest.: D F ADAMS
Tech. Officer: LARC/N J JOHNSTON, LARC/P M HERGENROTHER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1623 UNIVERSITY OF WYOMING 9819
 AN INVESTIGATION OF AEROSOL MEASUREMENTS FROM THE HALOGEN OCCULTATION EXPERIMENT: VALIDATION, SIZE
 04/26/1994 - 06/30/1998 FY99: -\$1 Total: \$178,035
Prin. Invest.: T DESHLER
Tech. Officer: LARC/J G WELLS, JR., LARC/J M RUSSELL III
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2164 UNIVERSITY OF WYOMING 9820
 EVALUATION OF SAGE II AND BALLOON-BARNE STRATOSPHERIC AEROSOL MEASUREMENTS
 03/18/1999 - 12/31/2001 FY99: \$45,551 Total: \$45,551
Prin. Invest.: T DESHLER
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 877 UNIVERSITY OF WYOMING 9821
 COMPILING DOMAIN SPECIFIC PROGRAM SYNTHESIS SYSTEMS
 01/10/1994 - 11/30/1998 FY99: \$0 Total: \$287,845
Prin. Invest.: J V BALLEEN
Tech. Officer: ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NAG 4 167 UNIVERSITY OF WYOMING 9822
 REDUCTION OF BASE DRAG ON LAUNCH VEHICLES
 03/16/1999 - 09/30/1999 FY99: \$35,157 Total: \$35,157
Prin. Invest.: J NAUGHTON
Tech. Officer: DFRC/S WHITMORE, DFRC/T R MOES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3861 UNIVERSITY OF WYOMING 9823
 ASSESSMENT OF CLIMATIC AND ANTHROPOGENIC IMPACTS OF CYCLE CONSTRAINED BY ATMOSPHERIC MEASUREMENTS AND
 02/03/1997 - 01/14/2000 FY99: \$43,123 Total: \$129,885
Prin. Invest.: E HUNT, JR. *Prin. Invest.:* NONE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3935 UNIVERSITY OF WYOMING 9824
 INFRARED SPECKLE INTERFEROMETRY OF IO
 03/25/1997 - 11/30/1999 FY99: \$42,018 Total: \$134,084
Prin. Invest.: D R HOWELL
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAG 5 4233 UNIVERSITY OF WYOMING 9825
 THEORETICAL STUDIES OF BINARY SYSTEMS CONTAINING C
 03/31/1997 - 03/31/2000 FY99: \$0 Total: \$20,347
Prin. Invest.: S B HOWELL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4864 UNIVERSITY OF WYOMING 9826
 A BINARY ACCRETION KEY STUDY: X-RAY PHOTOMETRY OF HU AQR
 06/17/1997 - 06/30/1998 FY99: \$0 Total: \$5,200
Prin. Invest.: S B HOWELL
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6492 UNIVERSITY OF WYOMING 9827
 UNDERGRADUATE SEARCH FOR EXTRA-SOLAR PLANETS
 10/31/1997 - 09/30/1999 FY99: \$0 Total: \$19,925
Prin. Invest.: D HOWELL
Tech. Officer: GSFC/H SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 6628 UNIVERSITY OF WYOMING 9828
 INVESTIGATIONS OF SULFATE AEROSOLS AND POLAR STRATOSPHERIC CLOUDS USING COMBINED OBSERVATIONS FROM
 11/18/1997 - 11/30/1999 FY99: \$4,547 Total: \$113,495
Prin. Invest.: D E HERVIG
Tech. Officer: GSFC/A DOUGLASS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6735 UNIVERSITY OF WYOMING 9829
 FUV OBSERVATIONS OF PQ GEM
 12/17/1997 - 12/31/1999 FY99: -\$19,630 Total: \$20,372
Prin. Invest.: S R HOWELL
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 6738 UNIVERSITY OF WYOMING 9830
 THE THREE DIMENSIONAL STRUCTURE OF ACCRETIONS REGIONS: ANALYSIS OF EUVE AND ROSAT ARCHIVAL DATA
 12/17/1997 - 09/30/1999 FY99: \$0 Total: \$50,000
Prin. Invest.: S HOWELL
Tech. Officer: GSFC/D WEST
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 7036 UNIVERSITY OF WYOMING 9831
 THERE ARE 3 TITLES ON THIS PROPOSAL. SEE OTHER TEXT
 02/19/1998 - 02/28/1999 FY99: \$0 Total: \$34,560
Prin. Invest.: S B HOWELL
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAGW 2666 UNIVERSITY OF WYOMING 9832
 NAGW-2666/UNIV WYOMING/GENERAL CIRCULATION MODEL SIMULATIONS FOR ANTARCTICA
 09/24/1991 - 09/30/1997 FY99: \$0 Total: \$304,556
Prin. Invest.: T R PARISH
Tech. Officer: HQ/R H THOMAS, HQ/R A SCHIFFER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3749 UNIVERSITY OF WYOMING 9833
 VERTICAL PROFILES OF CLOUD CONDENSATION NUCLEI
 10/13/1993 - 01/30/1998 FY99: \$0 Total: \$392,303
Prin. Invest.: T DESHER, J R SNIDER, G VALI
Tech. Officer: HQ/J T SUTTLES, HQ/A C JANETOS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 18945 UNIVERSITY OF WYOMING 9834
 SAGE III SCIENCE INVESTIGATION SUPPORT P.I. - DR. GABOR VALI
 01/17/1990 - 01/31/2005 FY99: \$50,550 Total: \$378,300
Prin. Invest.: G VALI
Tech. Officer: LARC/G L MADDREA, LARC/L R MCMASTER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5315 UNIVERSITY OF WYOMING 9835
 AUTOMATIC FRINGE DETECTION FOR OIL FILM INTERFEROMETRY SKIN-FRICTION MEASUREMENT
 04/12/1999 - 04/30/2000 FY99: \$20,093 Total: \$20,093
Prin. Invest.: J W NAUGHTON
Tech. Officer: ARC/D M DRIVER, ARC/G ZILLIAC
CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 414 UNIVERSITY OF WYOMING 9836
 EPSCOR PREPARATION PROGRAM
 06/18/1999 - 08/31/2000 FY99: \$209,188 Total: \$209,188
Prin. Invest.: P JOHNSON
Tech. Officer: GSFC/DDETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 2 52218 UNIVERSITY OF WYOMING 9837
 IMPLEMENTATION OF NASA-AMES HI-FOGS AT WIRO
 08/14/1996 - 05/31/1999 FY99: \$0 Total: \$55,500
Prin. Invest.: C E WOODWARD
Tech. Officer: ARC/J D BREGMAN, ARC/F C WITTEBORN
CASE Category: 11 - ASTRONOMY

NGT 5 40008 UNIVERSITY OF WYOMING 9838
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM
 02/03/1997 - 02/28/2000 FY99: \$212,500 Total: \$595,000
Prin. Invest.: P E JOHNSON
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 36 UNIVERSITY OF WYOMING 9839
 TRAINING GRANT
 06/04/1998 - 06/30/1999 FY99: \$0 Total: \$22,000
Prin. Invest.: R 3 GANTENBEIN
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 22 - COMPUTER SCIENCE

GUAM

NAG 5 6798 UNIVERSITY OF GUAM - MANGILAO 4145
 ESTABLISHING A CTR OF EXCELLENCE FOR REMOTE SENSING AT THE UNIVERSITY OF GUAM FOR ENHANCING RESEARCH
 02/25/1998 - 09/30/1999 FY99: \$0 Total: \$80,000
Prin. Invest.: M LANDER
Tech. Officer: GSFC/M WEIM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

COMMONWEALTH OF PUERTO RICO

NAG 2 1149 PONCE SCHOOL OF MEDICINE 9840
 SOLAR ULTRA VIOLET-B RADIATION & PUBLIC HEALTH IN PUERTO RICO
 08/07/1997 - 07/31/1999 FY99: \$96,726 Total: \$290,529
Prin. Invest.: J L MATTA
Tech. Officer: ARC/H L D'ANTONI
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 1 1496 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9841
 TECHNIQUES FOR THE ANALYSIS OF SYSTEMS WITH DAMPING MATERIALS BY THE FRACTIONAL DERIVATIVE
 04/19/1993 - 12/31/1997 FY99: \$1 Total: \$149,259
Prin. Invest.: L SUAREZ
Tech. Officer: LARC/L G HORTA
CASE Category: 46 - MECHANICAL ENGR

NAG 5 2909 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9842
 ESTIMATION OF OCEAN PRIMARY PRODUCTIVITY USING IN-SITU FLUORESCENCE AND SEAWIFS
 03/10/1995 - 10/31/1997 FY99: \$0 Total: \$150,000
Prin. Invest.: J M LOPEZ
Tech. Officer: GSFC/W E ESAIAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6031 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9843
 DYNAMIC TOPOGRAPHY, GRAVITY, & SURFACE DEFORMATION: APPLICATION TO HAZARD ASSESSMENT OF ERUPTING IS
 10/02/1997 - 09/30/1999 FY99: \$0 Total: \$129,353
Prin. Invest.: G MATTIOLI
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7198 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9844
 CATS-CARIBBEAN TIME SERIES: A SERIAL OBSERVING STATION IN THE NORTHEASTERN CARIBBEAN SEA
 05/04/1998 - 06/30/2000 FY99: \$31,500 Total: \$94,500
Prin. Invest.: J CORREDOR
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1344 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9845
 RESEARCH "ELECTROOPTICAL EFFECTS ON THIN ORGANIC FILMS OF 3-NITROANILINE & 2-CYCLO-OCTYLALUMINO..."
 04/24/1997 - 04/23/2000 FY99: \$71,003 Total: \$244,765
Prin. Invest.: A LYDERMAN, NONE
Tech. Officer: MSFC/B PENN
CASE Category: 13 - PHYSICS

NAG 8 1389 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9846
 RES: "THERMAL PROPERTIES OF MELT-GLASS TRANSITIONS OF ORGANIC COMPOUNDS FOR NONLINEAR OPTICAL APPLICATIONS"
 07/09/1997 - 07/08/1998 FY99: \$0 Total: \$217,351
Prin. Invest.: A BARRIENTOS
Tech. Officer: MSFC/M VLASSE
CASE Category: 13 - PHYSICS

NASA'S UNIVERSITY PROGRAM

COMMONWEALTH OF PUERTO RICO

NAGW 4614 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9847
 USING CBL TECHNOLOGY TO IMPROVE SCIENCE EDUCATION IN PUERTO RICO
 07/20/1995 - 06/30/1998 FY99: \$0 Total: \$152,325
Prin. Invest.: B RAMINEZ
Tech. Officer: HQ/
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 236 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9848
 RECOVERY SYSTEMS FOR SEPARATION OF SALTS FROM PROCESS STREAMS FOR USE IN ADVANCED LIFE SUPPORT
 12/18/1997 - 06/19/1998 FY99: \$0 Total: \$49,819
Prin. Invest.: G COLON
Tech. Officer: KSC/J SAGER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG10 243 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9849
 MASTAP - TEACHER ENHANCEMENT PROJECT
 04/15/1998 - 04/18/2000 FY99: \$188,379 Total: \$385,949
Prin. Invest.: B RAMIREZ
Tech. Officer: KSC/J DIGGS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 257 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9850
 SODIUM CHLORIDE AND NITRATE SEPARATION/RECOVERY FROM CELLS WASTES
 04/20/1999 - 04/19/2000 FY99: \$99,309 Total: \$99,309
Prin. Invest.: G COLON
Tech. Officer: KSC/J SAYER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG13 54 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9851
 ANALYSIS OF THE INHERENT AND APPARENT OPTICAL PROPERTIES
 07/16/1997 - 07/15/2000 FY99: \$139,954 Total: \$299,899
Prin. Invest.: R A ARMSTRONG
Tech. Officer: JSC/R L MILLER
CASE Category: 33 - OCEANOGRAPHY

NAG13 99029 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9852
 DEVELOPMENT AND VALIDATION OF BIO-OPTICAL ALGORITHMS IN COASTAL WATER
 09/15/1999 - 09/14/2000 FY99: \$99,990 Total: \$99,990
Prin. Invest.: F GILBES
Tech. Officer: SSC/R TRAVIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 1 257 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9853
 MEASUREMENT OF NONLINEAR RECEPTIVITY TO SURFACE IRREGULARITIES
 05/01/1997 - 06/30/1998 FY99: -\$1 Total: \$23,369
Prin. Invest.: J B DAVILA-ACRON, M R HAJJ
Tech. Officer: LARC/R A KING
CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 200 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9854
 PARTNERSHIP FOR SPACE TELECOMMUNICATIONS EDUCATION
 06/17/1997 - 05/31/1999 FY99: \$98,388 Total: \$396,904
Prin. Invest.: R FERNANDEZ-SEIN, NONE
Tech. Officer: GSFC/M BUTLER
CASE Category: 45 - ELECTRICAL ENGR

NCC 5 215 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9855
 "TROPICAL ATMOSPHERIC SCIENCES CENTER" THE NASA/PUERTO RICO EPSCOR PROGRAM.
 07/07/1997 - 06/30/2000 FY99: \$400,000 Total: \$1,400,000
Prin. Invest.: B G WEINER
Tech. Officer: GSFC/D DETROYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 252 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9856
 TROPICAL CENTER FOR EARTH AND SPACE STUDIES
 10/29/1997 - 06/30/2000 FY99: \$1,072,248 Total: \$2,971,144
Prin. Invest.: R FERNANDEZ-SEIN
Tech. Officer: GSFC/D WILLIAMS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 340 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9857
 PARTNERSHIP FOR SPATIAL AND COMPUTATIONAL RESEARCH
 06/22/1998 - 05/31/2000 FY99: \$456,529 Total: \$918,446
Prin. Invest.: R VASQUEZ
Tech. Officer: HQ/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 37 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9858
 FABRICATION OF ORGANIC AND POLYMER GUIDING ORGANIC FILMS FROM MELT
 05/24/1994 - 11/24/1997 FY99: \$0 Total: \$135,906
Prin. Invest.: A LEYDERMAN
Tech. Officer: MSFC/B PENN
CASE Category: 12 - CHEMISTRY

NGT 30272 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9859
 GLOBAL CHANGE FELLOWSHIP AWARD
 09/22/1994 - 08/31/1998 FY99: \$0 Total: \$66,000
Prin. Invest.: J CORREDOR
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40012 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9860
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.
 01/30/1997 - 08/31/2000 FY99: \$406,250 Total: \$743,750
Prin. Invest.: D G WEINER
Tech. Officer: GSFC/D DETROYE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4619 UNIV OF PUERTO RICO HUMACAO UNIV COLLEGE 9861
 HUC-UPR MATHEMATICS, SCIENCE, AND TECHNOLOGY TEACHER AND CURRICULUM ENHANCEMENT PROGRAM (MASTAP)
 07/28/1995 - 06/30/1998 FY99: -\$17,868 Total: \$155,445
Prin. Invest.: A M GIERBOLINI
Tech. Officer: HQ/B L WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6428 UNIVERSITY OF PUERTO RICO-RIO PIEDRAS 9862
 LAND MANAGEMENT IN THE TROPICS AND ITS EFFECTS ON THE GLOBAL ENVIRONMENT
 10/09/1997 - 08/14/2000 FY99: \$430,219 Total: \$1,795,219
Prin. Invest.: B WEINER
Tech. Officer: GSFC/J MALONE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

AUSTRALIA

NCC 5 407 UNIVERSITY OF PUERTO RICO-RIO PIEDRAS 9863
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL
 05/17/1999 - 07/31/2000 FY99: \$225,000 Total: \$225,000
 Prin. Invest.: B R WEINER
 Tech. Officer: GSFC/D DETROYE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCCW 56 UNIVERSITY OF PUERTO RICO-RIO PIEDRAS 9864
 NASA EPSCOR PROGRAM
 08/16/1994 - 04/30/1998 FY99: -\$86,351 Total: \$1,413,649
 Prin. Invest.: B WINNER, J G LAGO
 Tech. Officer: HQ/L KEEFER, HQ/E T SCHWARTZ
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 8323 UNIVERSITY OF TURABO 9865
 APPLIED ENGINEERING LABORATORY
 04/15/1999 - 04/30/2000 FY99: \$74,500 Total: \$74,500
 Prin. Invest.: M MODESTO
 Tech. Officer: GSFC/M MATEU
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90064 UNIVERSITY OF TURABO 9866
 ENGINEERING PREPARATORY PROJECT FOR HISPANIC HIGH
 03/04/1997 - 02/28/2000 FY99: \$192,998 Total: \$580,680
 Prin. Invest.: B A MARRERO
 Tech. Officer: GSFC/M MATEU
 CASE Category: 49 - ENGINEERING, OTHER

AUSTRALIA

NAG 2 1252 AUSTRALIAN NATIONAL UNIVERSITY 9869
 INSECT-BASED VISION FOR AUTONOMOUS VEHICLES: A FEASIBILITY
 STUDY
 09/04/1998 - 11/14/1998 FY99: \$0 Total: \$21,502
 Prin. Invest.: M V SRINIVASAN
 Tech. Officer: ARC/C C JORGENSEN, ARC/C L JACKSON
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1846 UNIVERSITY OF QUEENSLAND 9870
 STUDIES OF THE UNSTEADY EXPANSION IN EXPANSION TUBES
 06/06/1996 - 12/31/1998 FY99: \$2,500 Total: \$56,001
 Prin. Invest.: R G MORGAN, P A JACOBS
 Tech. Officer: LARC/R C ROGERS, LARC/G Y ANDERSON
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2113 UNIVERSITY OF QUEENSLAND 9871
 SCRAMJET GROUND TEST TO FLIGHT TEST CORRELATION
 10/28/1998 - 09/30/1999 FY99: \$12,500 Total: \$12,500
 Prin. Invest.: A PAULL
 Tech. Officer: LARC/A H AUSLENDER, LARC/R T VOLAND
 CASE Category: 41 - AERONAUTICAL ENGR

CANADA

NAG 2 1040 MCGILL UNIVERSITY 9872
 CELLULAR DECOMPOSITION BASED HYBRID-HIERARCHICAL CONTROL
 SYSTEMS WITH APPLICATIONS TO FLIGHT
 04/30/1996 - 05/31/1999 FY99: \$0 Total: \$68,286
 Prin. Invest.: P E CAIN
 Tech. Officer: ARC/G MEYER
 CASE Category: 49 - ENGINEERING, OTHER

NASA'S UNIVERSITY PROGRAM

CHILE

NAS 5 1925 UNIVERSITY OF CHILE 9873
 M&O OF MINITRACK FACILITIES IN CLILE
 09/21/1962 - 12/31/1999 FY99: \$568,748 Total: \$97,487,867
 Prin. Invest.: E DIAZ
 Tech. Officer: GSFC/W J BODIN, GSFC/D SPINTMAN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

GREAT BRITAIN

NAG 2 1283 IMPERIAL COLLEGE OF SCIENCE & TECHNOLOGY 9874
 EVALUATION OF PARALLELISATION TOOLS FOR COMPUTATIONAL FLUID
 DYNAMICS CODE
 01/15/1999 - 09/30/1999 FY99: \$48,818 Total: \$48,818
 Prin. Invest.: R P LINDSTEDT
 Tech. Officer: ARC/M E DUENAS
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1339 UNIVERSITY OF GREENWICH 9875
 TOOLS FOR RAPID PARALLELIZATION OF LEGACY FORTRAN COMPUTA-
 TIONAL MECHANICS CODES
 07/27/1999 - 06/30/2000 FY99: \$150,000 Total: \$150,000
 Prin. Invest.: M CROSS
 Tech. Officer: ARC/S SAINI
 CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1260 UNIVERSITY OF SUSSEX 9876
 ROUTE LEARNING IN ANTS: STRATEGIES FOR THE RAPID ACQUISITION OF
 NAVIGATIONAL INFORMATION
 09/02/1998 - 08/31/1999 FY99: \$0 Total: \$10,522
 Prin. Invest.: T COLLECT
 Tech. Officer: ARC/C C JORGENSEN, ARC/C L JACKSON
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 2127 UNIVERSITY OF WALES 9877
 A MORE EFFICIENT FINITE ELEMENT ALGORITHM FOR HIGH SPEED COM-
 PRESSIBLE FLOW
 06/15/1990 - 04/25/1999 FY99: \$30,000 Total: \$639,400
 Prin. Invest.: O C ZIENKIEWICZ
 Tech. Officer: ARC/K K GUPTA, ARC/K L PETERSEN
 CASE Category: 41 - AERONAUTICAL ENGR

ISRAEL

NCC 2 995 ISRAEL INSTITUTE OF TECHNOLOGY 9878
 A COGNITIVE GAME THEORETIC ANALYSIS OF CONFLICT ALERTS IN AIR
 TRAFFIC CONTROL
 08/12/1997 - 04/30/1999 FY99: \$20,000 Total: \$80,000
 Prin. Invest.: D GOPHER, I EREN
 Tech. Officer: ARC/R W REMINGTON
 CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 1023 ISRAEL INSTITUTE OF TECHNOLOGY 9879
 INTERACTIVE DISPLAY FORMATS FOR AIR TRAFFIC CONFLICT RESOLU-
 TION TRAJECTORY PLANNING
 02/26/1998 - 01/31/1999 FY99: \$0 Total: \$55,277
 Prin. Invest.: A J GRUNWALD
 Tech. Officer: ARC/S R ELLIS
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2063 TEL-AVIV UNIVERSITY **9880**
SPECTRAL CONTENT OF SOLAR RADIATION ON MARTIAN SUR FACE
07/23/1997 - 05/13/1999 FY99: \$0 Total: \$32,343
Prin. Invest.: J APPLEBAUM
Tech. Officer: GRC/C R BARAONA, GRC/D BRINKER
CASE Category: 13 - PHYSICS

NAG 1 1823 WEIZMANN INSTITUTE OF SCIENCE **9881**
ADVANCED MULTIGRID SOLVERS FOR FLUID DYNAMICS
04/02/1996 - 10/31/1999 FY99: \$34,000 Total: \$102,001
Prin. Invest.: A BRANDT, J RUGE
Tech. Officer: LARC/J C SOUTH, JR., LARC/J L THOMAS
CASE Category: 21 - MATHEMATICS

ITALY

NAG 1 2076 UNIVERSITY OF ROME **9882**
ANALYSIS OF UNSTEADY FLOW PHENOMENA - VORTEX AND SHOCK -
BOUNDARY LAYER INTERACTIONS
05/29/1998 - 09/30/1998 FY99: \$1 Total: \$13,001
Prin. Invest.: F GRASSO
Tech. Officer: LARC/T B BATSKI
CASE Category: 41 - AERONAUTICAL ENGR

NETHERLANDS

NAG 1 2129 DELFT UNIV OF TECHNOLOGY-NETHERLANDS **9883**
INVESTIGATION OF THE SENSITIVITY OF THE BUCKLING LOAD TO VARI-
ATIONS IN DESIGN PARAMETERS AND GEOMET
01/14/1999 - 12/31/1999 FY99: \$25,000 Total: \$25,000
Prin. Invest.: J ARBOCZ
Tech. Officer: LARC/J H STARNES, JR., LARC/M P NEMETH
CASE Category: 41 - AERONAUTICAL ENGR

NEW ZEALAND

NAG 2 1168 UNIVERSITY OF WAIKATO **9884**
SELF-MOTION & DEPTH ESTIMATION FROM IMAGE SEQUENCES
11/25/1997 - 04/30/1999 FY99: \$0 Total: \$18,740
Prin. Invest.: N AVAILABLE
Tech. Officer: ARC/N AVAILABLE
CASE Category: 41 - AERONAUTICAL ENGR

PERU

NAG 5 99121 UNIV NACIONAL DE SAN AGUSTIN - AREQUIPA **9885**
OPERATE & MAINTAIN LASER TRACKING STATION AT AREQUIPA PERU
03/18/1999 - 01/23/2000 FY99: \$125,317 Total: \$125,317
Prin. Invest.: N APPLICABLE
Tech. Officer: GSFC/D L CARTER
CASE Category: 32 - GEOLOGICAL SCIENCE

RUSSIA

NCC 1 238 ALL RUSSIAN SCIENCE RESEARCH INSTITUTE VIAM **9867**
AN INVESTIGATION OF SHEET AND STRUCTURAL CONCEPTS FROM ALLOY
1441
08/23/1996 - 11/18/1998 FY99: \$0 Total: \$120,000
Prin. Invest.: J N FRIDLYANDER
Tech. Officer: LARC/R K BIRD, LARC/W B LISAGOR
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 3409 NOVOSIBIRSK STATE UNIVERSITY **9868**
INVESTIGATION OF GLOBAL INFLUENCE OF NITROGEN OXIDES AND SUL-
FUR DIOXIDE EMISSION
10/24/1996 - 05/31/1999 FY99: \$0 Total: \$8,500
Prin. Invest.: I G DEMINOV
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

SCOTLAND

NAG 2 1241 UNIVERSITY OF GLASGOW **9886**
PARALLEL FINITE ELEMENT SIMULATION OF 'ATOMISTIC' EFFECTS IN
SUB-0.1 MICRON DEVICES
07/21/1998 - 07/31/2000 FY99: \$180,000 Total: \$255,000
Prin. Invest.: A ASEN OV
Tech. Officer: ARC/T R GOVINDAN
CASE Category: 45 - ELECTRICAL ENGR

WEST GERMANY

NAG 2 1155 UNIV STUTTGART **9887**
AMERICAN PHYSICAL SOCIETY MEETING FOR ALAN CELLIC
08/18/1997 - 11/30/1997 FY99: \$0 Total: \$1,860
Prin. Invest.: I S WAGNER
Tech. Officer: ARC/G ZILLIAC
CASE Category: 41 - AERONAUTICAL ENGR

NASA'S UNIVERSITY PROGRAM

APPENDIX

CROSS INDEX BY FIELD OF SCIENCE AND ENGINEERING

The fields used here are specified by Amendment J, "Standard Classification of Fields of Science and Engineering," to Office of Management and Budget (OMB) Circular A-46, "Standards for Statistical Surveys." Field codes are interpreted as follows:

PHYSICAL SCIENCES		ENVIRONMENTAL SCIENCES (Terrestrial and extraterrestrial)		LIFE SCIENCES		SOCIAL SCIENCES	
11	ASTRONOMY	31	ATMOSPHERIC SCIENCES	51	BIOLOGICAL SCIENCES	71	ANTHROPOLOGY
12	CHEMISTRY	32	GEOLOGICAL SCIENCES	54	ENVIRONMENTAL BIOLOGY	72	ECONOMICS
13	PHYSICS	33	OCEANOGRAPHY	55	AGRICULTURAL SCIENCES	73	HISTORY
19	PHYSICAL SCIENCES, NEC*	39	ENVIRONMENTAL SCIENCES, NEC*	56	MEDICAL SCIENCES	74	LINGUISTICS
				59	LIFE SCIENCES, NEC*	75	POLITICAL SCIENCE
						76	SOCIOLOGY
						79	SOCIAL SCIENCE, NEC*
MATHEMATICAL/COMPUTER SCIENCE		ENGINEERING		PSYCHOLOGY		OTHER SCIENCES**	
21	MATHEMATICS	41	AERONAUTICAL	61	BIOLOGICAL	99	ALL DISCIPLINE(S)
22	COMPUTER SCIENCES	42	ASTRONAUTICAL	62	SOCIAL SCIENCES		
29	MATHEMATICAL COMPUTER SCIENCES, NEC*	43	CHEMICAL	69	PSYCHOLOGY, NEC*		
		44	CIVIL				
		45	ELECTRICAL				
		46	MECHANICAL				
		47	METALLURGY AND MATERIALS				
		49	ENGINEERING, NEC*				

* Not elsewhere classified (For interdisciplinary projects and others not listed by discipline name)

** For interdisciplinary projects which cannot be classified within any of the preceding main fields

Abbreviations used in the *Technical Officer Location* column are discussed in the prefatory pages.

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	ARIZONA STATE UNIV	D K WEST	GSFC	M POLITANO	NAG 5 3892	24
11	ARIZONA STATE UNIV	D K WEST	GSFC	M POLITANO	NAG 5 8481	26
11	ARIZONA STATE UNIV	D K WEST	GSFC	S G STARRFIELD	NAG 5 8278	26
11	ARIZONA STATE UNIV	D K WEST	GSFC	S STARRFIELD	NAG 5 6741	25
11	ARIZONA STATE UNIV	D NAVA	GSFC	P R BUSECK	NAG 5 4308	25
11	ARIZONA STATE UNIV	D WEST	GSFC	A P COWLEY	NAG 5 3004	24
11	ARIZONA STATE UNIV	D WEST	GSFC	R WINDHORST	NAG 5 6740	25
11	ARIZONA STATE UNIV	J BOYCE	GSFC	D R HUSS	NAG 5 8173	26
11	ARIZONA STATE UNIV	J BOYCE	GSFC	D WYCKOFF	NAG 5 4280	25
11	ARIZONA STATE UNIV	J BOYCE	GSFC	L A LESHIN	NAG 5 8286	26
11	ARIZONA STATE UNIV	J BOYCE	GSFC	P R BUSECK	NAG 5 6108	25
11	ARIZONA STATE UNIV	J BOYCE	GSFC	R GREELEY	NAG 5 8453	26
11	ARIZONA STATE UNIV	J BOYCE	GSFC	R GREELEY	NAG 5 8721	26
11	ARIZONA STATE UNIV	J BOYCE	HQ	D A LESHIN	NAG 5 7640	25
11	ARIZONA STATE UNIV	J BOYCE	HQ	D R HUSS	NAG 5 8158	26
11	ARIZONA STATE UNIV	J BOYCE	HQ	L LESHIN	NAG 5 7540	25
11	ARIZONA STATE UNIV	J BOYCE	HQ	P A WEHINGER	NAG 5 7199	25
11	ARIZONA STATE UNIV	J BOYCE	HQ	T G SHARP	NAG 5 7285	25
11	ARIZONA STATE UNIV	J M BOYCE	GSFC	D L GRAF	NAG 5 4439	25
11	ARIZONA STATE UNIV	J M BOYCE	GSFC	M S EDGETT	NAG 5 4296	25
11	ARIZONA STATE UNIV	J SWANK	GSFC	P SCHMIDTKE	NAG 5 3286	24
11	ARIZONA STATE UNIV	M MEYER	GSFC	R E BLANKENSHIP	NAG 5 6831	25
11	AUBURN UNIV	D EVANS	GSFC	D LIN	NAG 5 8081	3
11	BARNARD COLLEGE	J P NORRIS	GSFC	R MUKHERJEE	NAG 5 6956	369
11	BARNARD COLLEGE	J P NORRIS	GSFC	R MUKHERJEE	NAG 5 7341	369
11	BELOIT COLLEGE	S SOBIESKI	GSFC	D J SCHROEDER	NAG 5 1620	545
11	BLOOMSBURG UNIV	J GRANT	GSFC	M K SHEPARD	NAG 5 7964	436
11	BOSTON UNIV	D K WEST	GSFC	A P MARSCHER	NAG 5 3839	281
11	BOSTON UNIV	D WEST	GSFC	D P CLEMENS	NAG 5 3337	280
11	BOSTON UNIV	D WEST	GSFC	J R MATTOX	NAG 5 3384	281
11	BOSTON UNIV	H HASAN	GSFC	D CHAKRABARTI	NAG 5 3999	281
11	BOSTON UNIV	J BERGSTRALH	GSFC	D MENDILLO	NAG 5 4991	282
11	BOSTON UNIV	J BREDEKAMP	GSFC	J D SULLIVAN	NAG 5 8147	284
11	BOSTON UNIV	J LING	GSFC	N CROOKER	NAG 5 6658	282

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
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11	BOSTON UNIV	J SWANK	GSFC	A MARSCHER	NAG 5 4245	281
11	BOSTON UNIV	J SWANK	GSFC	A MARSCHER	NAG 5 7331	283
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11	BOSTON UNIV	L KALUZIENSKI	GSFC	T BRAINERD	NAG 5 8756	284
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11	BOSTON UNIV	T MORGAN	GSFC	M MENDILLO	NAG 5 8012	283
11	BOWIE STATE UNIV	D A WEIDOW	GSFC	P C CHI	NCC 5 145	248
11	BOWIE STATE UNIV	W CAMPBELL	GSFC	M MAREBOYANA	NAG 5 2829	248
11	BROWN UNIV	B CAMPBELL	GSFC	P H SCHULTZ	NAG 5 7082	457
11	BROWN UNIV	D NAVA	GSFC	D C HESS	NAG 5 4650	456
11	BROWN UNIV	D NAVA	GSFC	D M PIETERS	NAG 5 4303	456
11	BROWN UNIV	J BOYCE	GSFC	D C HESS	NAG 5 8174	457
11	BROWN UNIV	J BOYCE	GSFC	D HEAD	NAG 5 4231	456
11	BROWN UNIV	J BOYCE	GSFC	D M PIETERS	NAG 5 8302	457
11	BROWN UNIV	J BOYCE	GSFC	D W HEAD	NAG 5 4676	457
11	BROWN UNIV	J BOYCE	HQ	J W HEAD	NAG 5 8283	457
11	BROWN UNIV	J BOYCE	HQ	M J RUTHERFORD	NAG 5 8181	457
11	BROWN UNIV	L SMITH	GSFC	P H SCHULTZ	NGT 5 50166	458
11	BROWN UNIV	P G ROGERS	GSFC	D J RUTHERFORD	NAG 5 4438	456
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FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
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11	CALIFORNIA INST OF TECH	W J WAGNER	GSFC	D G LIBBRECHT	NAG 5 6173	47
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11	CALIFORNIA STATE UNIV - FULLERTON	J BOYCE	GSFC	D WOOLUM	NAG 5 4945	52
11	CALIFORNIA STATE UNIV - FULLERTON	T P STECHER	GSFC	P CHENG	NAG 5 4113	52
11	CALIFORNIA STATE UNIV - NORTHRIDGE	D EVANS	GSFC	D A CHAPMAN	NAG 5 7778	54
11	CALIFORNIA STATE UNIV - NORTHRIDGE	J E ALLEN	GSFC	M J PENN	NCC 5 381	54
11	CALIFORNIA STATE UNIV - NORTHRIDGE	W J WAGNER	GSFC	G A CHAPMAN	NAG 5 4973	54
11	CALIFORNIA STATE UNIV - NORTHRIDGE	W WAGNER	GSFC	G CHAPMAN	NAG 5 7191	54
11	CALIFORNIA STATE UNIV - NORTHRIDGE	W WAGNER	GSFC	S R WALTON	NAG 5 7059	54
11	CARNEGIE - MELLON UNIV	D K WEST	GSFC	A K ROMER	NAG 5 7926	438
11	CARNEGIE - MELLON UNIV	D K WEST	GSFC	R E GRIFFITHS	NAG 5 7898	438
11	CARNEGIE - MELLON UNIV	D LAVERY	GSFC	T KANADE	NCC 5 223	439
11	CARNEGIE - MELLON UNIV	D LAVERY	GSFC	W WHITTAKER	NAG 5 7707	438
11	CARNEGIE - MELLON UNIV	D LAVERY	GSFC	W WHITTAKER	NAG 5 7722	438
11	CARNEGIE - MELLON UNIV	D MACHI	GSFC	D GRIFFITHS	NAG 5 3651	437
11	CARNEGIE - MELLON UNIV	D WEST	GSFC	R NICHOL	NAG 5 6548	438
11	CARNEGIE - MELLON UNIV	L SMITH	GSFC	W WHITTAKER	NGT 5 50248	439
11	CARNEGIE - MELLON UNIV	N WHITE	GSFC	R E GRIFFITHS	NAG 5 6075	438
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11	CASE WESTERN RESERVE UNIV	D K WEST	GSFC	C MIHOS	NAG 5 7019	410
11	CASE WESTERN RESERVE UNIV	J BOYCE	HQ	R HARVEY	NAG 5 6715	410
11	CHARLES COUNTY COMM COLLEGE	J NUTH	GSFC	G KRAUSE	NCC 5 69	249
11	CHRISTOPHER NEWPORT UNIV	D STARR	GSFC	N POUGATCHEV	NAG 5 6503	507
11	CITY UNIV OF NY CITY COLLEGE	B CARSLON	GSFC	N PARKER	NCC 5 378	371
11	CLAREMONT MCKENNA COLLEGE	D C LING	GSFC	D C HIGDON	NAG 5 8017	55
11	CLAREMONT MCKENNA COLLEGE	J P NORRIS	GSFC	V WANG	NAG 5 3519	55
11	CLARK ATLANTA UNIV	R BEEBE	GSFC	S TAYAL	NAG 5 6889	187
11	CLEMSON UNIV - CLEMSON	D F NAVA	GSFC	D S MEYER	NAG 5 4703	460
11	CLEMSON UNIV - CLEMSON	D WEST	GSFC	M LEISING	NAG 5 2419	460
11	CLEMSON UNIV - CLEMSON	J BOYCE	GSFC	P D CLAYTON	NAG 5 4340	460
11	CLEMSON UNIV - CLEMSON	J BOYCE	HQ	D D CLAYTON	NAG 5 8448	461
11	CLEMSON UNIV - CLEMSON	J NORRIS	GSFC	D HARTMANN	NAG 5 7488	460
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	L THE	NAG 5 6892	460
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	L THE	NAG 5 7831	461
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	M D LEISING	NAG 5 3699	460
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	M D LEISING	NAG 5 7570	460
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	M D LEISING	NAG 5 8075	461
11	COLLEGE OF CHARLESTON	J BOYCE	GSFC	C R COOMBS	NAG 5 7183	462
11	COLLEGE OF CHARLESTON	J ROSENTHAL	GSFC	M COLGAN	NCC 5 263	462
11	COLUMBIA UNIV	D HOLLAND	GSFC	C J HAILEY	NAG 5 3463	373

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
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11	COLUMBIA UNIV	D K WEST	GSFC	D HELFANDO	NAG 5 6035	375
11	COLUMBIA UNIV	D K WEST	GSFC	E V GOTTHELF	NAG 5 7935	377
11	COLUMBIA UNIV	D K WEST	GSFC	J O PATTERSON	NAG 5 7977	377
11	COLUMBIA UNIV	D K WEST	GSFC	J P HALPERN	NAG 5 7814	377
11	COLUMBIA UNIV	D K WEST	GSFC	K CHEN	NAG 5 3843	373
11	COLUMBIA UNIV	D K WEST	GSFC	K M LEIGHLY	NAG 5 7971	377
11	COLUMBIA UNIV	D K WEST	GSFC	M P KAMIONKOWSKI	NAG 5 8506	377
11	COLUMBIA UNIV	D NAVA	GSFC	D LONGHI	NAG 5 4649	374
11	COLUMBIA UNIV	D RENEL	GSFC	M CANE	NAG 5 4058	374
11	COLUMBIA UNIV	D WEST	GSFC	J P HAIPERN	NAG 5 3229	372
11	COLUMBIA UNIV	D WEST	GSFC	M P KAMIONKOWSKI	NAG 5 3091	372
11	COLUMBIA UNIV	J BOYCE	HQ	D LONGHI	NAG 5 4558	374
11	COLUMBIA UNIV	J P NORRIE	GSFC	E APRILE	NAG 5 2872	372
11	COLUMBIA UNIV	J P NORRIS	GSFC	D J HELFAND	NAG 5 2861	372
11	COLUMBIA UNIV	J P NORRIS	GSFC	M TAVANI	NAG 5 3838	373
11	COLUMBIA UNIV	J P NORRIS	GSFC	P KAARET	NAG 5 3799	373
11	COLUMBIA UNIV	J P NORRIS	GSFC	P KAARET	NAG 5 3891	373
11	COLUMBIA UNIV	J P NORRIS	GSFC	U OBERLACK	NAG 5 7846	377
11	COLUMBIA UNIV	J SWANK	GSFC	E GOTTHELF	NAG 5 7740	376
11	COLUMBIA UNIV	J SWANK	GSFC	J PATTERSON	NAG 5 3288	372
11	COLUMBIA UNIV	J SWANK	GSFC	J PATTERSON	NAG 5 4734	374
11	COLUMBIA UNIV	J SWANK	GSFC	K LEIGHLY	NAG 5 4112	374
11	COLUMBIA UNIV	J SWANK	GSFC	K LEIGHLY	NAG 5 6920	376
11	COLUMBIA UNIV	J SWANK	GSFC	K LEIGHLY	NAG 5 6921	376
11	COLUMBIA UNIV	J SWANK	GSFC	K LEIGHLY	NAG 5 6959	376
11	COLUMBIA UNIV	J SWANK	GSFC	M TAVANI	NAG 5 4424	374
11	COLUMBIA UNIV	J SWANK	GSFC	P KAARET	NAG 5 3460	373
11	COLUMBIA UNIV	J SWANK	GSFC	P KAARET	NAG 5 3595	373
11	COLUMBIA UNIV	J SWANK	GSFC	P KAARET	NAG 5 4416	374
11	COLUMBIA UNIV	J SWANK	GSFC	P KAARET	NAG 5 4425	374
11	COLUMBIA UNIV	J SWANK	GSFC	P KAARET	NAG 5 4633	374
11	COLUMBIA UNIV	J SWANK	GSFC	S KAHN	NAG 5 7259	376
11	COLUMBIA UNIV	N E WHITE	GSFC	S M KAHN	NAG 5 7737	376
11	COLUMBIA UNIV	N WHITE	GSFC	D J HELFAND	NAG 5 2556	372
11	COLUMBIA UNIV	N WHITE	GSFC	J HALTON	NAG 5 3307	373
11	COLUMBIA UNIV	N WHITE	GSFC	J PATTERSON	NAG 5 3329	373
11	COLUMBIA UNIV	N WHITE	GSFC	K M LEIGHLY	NAG 5 7261	376
11	COLUMBIA UNIV	N WHITE	GSFC	M TAVANI	NAG 5 4634	374
11	COLUMBIA UNIV	N WHITE	GSFC	M TAVANI	NAG 5 4827	374
11	COLUMBIA UNIV	N WHITE	GSFC	M TAVANI	NAG 5 6232	375
11	COLUMBIA UNIV	R PETRE	GSFC	C J HAILEY	NAG 5 4759	374
11	COLUMBIA UNIV	R PETRE	GSFC	D HELFAND	NAG 5 2916	372
11	COLUMBIA UNIV	R PETRE	GSFC	J HALPERN	NAG 5 4789	374
11	COLUMBIA UNIV	WEST	GSFC	A P CROTTA	NAG 5 3319	373
11	CORNELL UNIV	A CARRO	GSFC	D VEVERKA	NAG 5 8067	383
11	CORNELL UNIV	C R MCCREIGHT	ARC	T L HERTER	NAG 2 1145	379
11	CORNELL UNIV	D K WEST	GSFC	D LAI	NAG 5 8484	383
11	CORNELL UNIV	D K WEST	GSFC	S TUEKOLSKY	NAG 5 7264	382
11	CORNELL UNIV	D K WEST	GSFC	T J LOREDO	NAG 5 3427	380
11	CORNELL UNIV	D K WEST	GSFC	Z ARZOUManian	NAG 5 6893	382
11	CORNELL UNIV	D WEST	GSFC	D F CHERNOFF	NAG 5 2851	380
11	CORNELL UNIV	D WEST	GSFC	G J STACEY	NAG 5 3347	380
11	CORNELL UNIV	D WEST	GSFC	I M WASSERMAN	NAG 5 3097	380
11	CORNELL UNIV	F M FLASAR	GSFC	B J CONRATH	NCC 5 375	384
11	CORNELL UNIV	F M FLASAR	GSFC	P J GIERASCH	NCC 5 84	384
11	CORNELL UNIV	F M FLASAR	GSFC	P J GIERASCH	NCC 5 322	384
11	CORNELL UNIV	G MUCKLOW	GSFC	G J STACEY	NAG 5 8673	383
11	CORNELL UNIV	H THRONSON	GSFC	D J SIEVERS	NAG 5 4504	381
11	CORNELL UNIV	H THRONSON	GSFC	D J STACEY	NAG 5 4503	381
11	CORNELL UNIV	H THRONSON	GSFC	D L HERTER	NAG 5 6495	382
11	CORNELL UNIV	H THRONSON	GSFC	D R HOUCK	NAG 5 4376	381
11	CORNELL UNIV	J BERGSTRALH	GSFC	D J GIERABCH	NAG 5 3862	380
11	CORNELL UNIV	J BOYCE	HQ	D F CHERNOFF	NAG 5 8356	383
11	CORNELL UNIV	J BOYCE	HQ	D J BANDFIELD	NAG 5 8282	383
11	CORNELL UNIV	J BOYCE	HQ	P V LOVELACE	NAG 5 6311	382

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	CORNELL UNIV	J BOYCE	HQ	R O POHL	NAG 5 7508	382
11	CORNELL UNIV	J GRANT	GSFC	D E CLARK	NAG 5 7892	382
11	CORNELL UNIV	J N CUZZI	ARC	P D NICHOLSON	NAG 2 1030	379
11	CORNELL UNIV	J P NORRIS	GSFC	J M CORDES	NAG 5 3515	380
11	CORNELL UNIV	J PNORRIS	GSFC	I M WASSERMAN	NAG 5 3800	380
11	CORNELL UNIV	J SWANK	GSFC	S S EIKENBERRY	NAG 5 7941	383
11	CORNELL UNIV	J T BERGSTRAHL	HQ	J R HOUCK	NASW 99008	384
11	CORNELL UNIV	J W POE	MSFC	J M PARPIA	NAG 8 1438	384
11	CORNELL UNIV	L D DEMING	GSFC	J HARRINGTON	NAG 5 7373	382
11	CORNELL UNIV	M BOYCE	GSFC	D W SQUYRES	NAG 5 4229	380
11	CORNELL UNIV	M D BICAY	HQ	J R HOUCK	NAGW 2551	384
11	CORNELL UNIV	M FLASAR	GSFC	P J GIERASCH	NCC 5 132	384
11	CORNELL UNIV	M MELLOTT	GSFC	P M KINTNER	NAG 5 6987	382
11	CORNELL UNIV	R BEEBE	GSFC	D HARRINGTON	NAG 5 7965	383
11	CORNELL UNIV	R BEEBE	GSFC	D J GIERASCH	NAG 5 7864	382
11	CORNELL UNIV	R BEEBE	GSFC	P HELFENSTEIN	NAG 5 8010	383
11	CORNELL UNIV	T MORGAN	GSFC	D BANFIELD	NAG 5 7919	382
11	CORNELL UNIV	T MORGAN	GSFC	D S HOWELL	NAG 5 8070	383
11	DARTMOUTH COLLEGE	A NURRIDIN	HQ	LABELLE	NGT 5 50093	348
11	DARTMOUTH COLLEGE	D BOHLIN	GSFC	J LYON	NAG 5 6439	347
11	DARTMOUTH COLLEGE	D EVANS	GSFC	B U SONNERUP	NAG 5 7185	347
11	DARTMOUTH COLLEGE	D EVANS	GSFC	M K HUDSON	NAG 5 7689	347
11	DARTMOUTH COLLEGE	H HASAN	GSFC	D GLEISER	NAG 5 4094	347
11	DARTMOUTH COLLEGE	H HASAN	GSFC	M GLEISER	NAG 5 6613	347
11	DARTMOUTH COLLEGE	L ZANETTI	GSFC	M K HUDSON	NGT 5 95	348
11	DARTMOUTH COLLEGE	R PETRE	GSFC	J THORSTENSEN	NAG 5 3212	347
11	DEPAUL UNIV	J ROSENDHAL	GSFC	C C NARASIMHAN	NCC 5 272	208
11	DRAKE UNIV	D K WEST	GSFC	A MARSTON	NAG 5 6854	230
11	DREXEL UNIV	D K WEST	GSFC	S L MCMILLAN	NAG 5 6964	440
11	ECKERD COLLEGE	M MOORE	GSFC	D SON	NAG 5 6712	167
11	FAIRFIELD UNIV	G MUCKLOW	GSFC	N HAEGEL	NAG 5 8650	151
11	FISK UNIV	J BIBRO	MSFC	H T CAULFRED	NAG 8 1402	465
11	FLA INTERNATIONAL UNIV	J P NORRIS	GSFC	J R WEBB	NAG 5 7325	168
11	FLA INTERNATIONAL UNIV	R HARTLE	GSFC	K HARDY	NAG 5 3826	168
11	FLORIDA ATLANTIC UNIV	D K WEST	GSFC	S W BRUENN	NAG 5 3903	171
11	FLORIDA INST OF TECH	T SCOTT	GSFC	C HELMSTETTER	NAG 5 3886	171
11	FLORIDA STATE UNIV	J BOYCE	HQ	J C CAIN	NAG 5 8284	174
11	FRANKLIN-MARSHALL COLLEGE	D K WEST	GSFC	D BACKMAN	NAG 5 6858	440
11	FRANKLIN-MARSHALL COLLEGE	D WEST	GSFC	D E BACKMAN	NAG 5 3365	440
11	FRANKLIN-MARSHALL COLLEGE	L J CAROFF	ARC	D E BACKMAN	NCC 2 5263	440
11	GEORGE MASON UNIV	D K WEST	GSFC	L OZNEROY	NAG 5 7065	509
11	GEORGE MASON UNIV	J SWANK	GSFC	L TITARCHUK	NAG 5 3240	509
11	GEORGE MASON UNIV	J SWANK	GSFC	L TITARCHUK	NAG 5 7317	509
11	GEORGE MASON UNIV	S KEMPLER	GSFC	M KAFATOS	NCC 5 143	509
11	GEORGE WASHINGTON UNIV	J BOYCE	GSFC	G M KEATING	NAG 5 8287	159
11	GEORGE WASHINGTON UNIV	R BEEBE	GSFC	D A LEVIN	NAG 5 8068	159
11	GEORGIA INST OF TECH	H HASAN	GSFC	S T MANSON	NAG 5 7752	191
11	GEORGIA INST OF TECH	J BOYCE	HQ	D P BRADLEY	NAG 5 7450	191
11	GEORGIA STATE UNIV	D K WEST	GSFC	D GIES	NAG 5 6904	194
11	GEORGIA STATE UNIV	D WEST	GSFC	D R GIES	NAG 5 2979	194
11	GEORGIA STATE UNIV	D WEST	GSFC	P J WILTA	NAG 5 3098	194
11	GEORGIA STATE UNIV	H HASAN	GSFC	D T MANSON	NAG 5 4091	194
11	GEORGIA STATE UNIV	H THRONSON	GSFC	D PERERA	NAG 5 4950	194
11	GEORGIA STATE UNIV	J P NORRIS	GSFC	H MILLER	NAG 5 3667	194
11	GEORGIA STATE UNIV	J P NORRIS	GSFC	H MILLER	NAG 5 7324	195
11	GEORGIA STATE UNIV	J P NORRIS	GSFC	H MILLER	NAG 5 7830	195
11	GEORGIA STATE UNIV	J SWANK	GSFC	R MILLER	NAG 5 7120	195
11	GEORGIA STATE UNIV	R POLIDAN	GSFC	H MILLER	NAG 5 6929	195
11	GRAMBLING STATE UNIV	B PENN	MSFC	C WALTON	NAG 8 1392	242
11	HARVARD UNIV	D F NAVA	GSFC	D CAMERON	NAG 5 4690	288
11	HARVARD UNIV	D HOLLAND	GSFC	M NAHUM	NAG 5 3709	287
11	HARVARD UNIV	D K WEST	GSFC	A GOODMAN	NAG 5 3564	287
11	HARVARD UNIV	D K WEST	GSFC	A LOEB	NAG 5 7039	288
11	HARVARD UNIV	D K WEST	GSFC	C S KOCHANNEK	NAG 5 4062	287
11	HARVARD UNIV	D K WEST	GSFC	L E HERNQUIST	NAG 5 8727	289
11	HARVARD UNIV	D NAVA	GSFC	D B JACOBSEN	NAG 5 4720	288

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	HARVARD UNIV	D NAVA	GSFC	D G AGEE	NAG 5 4713	288
11	HARVARD UNIV	D NAVA	GSFC	D X SASSELOV	NAG 5 4132	287
11	HARVARD UNIV	D RIND	GSFC	D JACOB	NAG 5 3553	287
11	HARVARD UNIV	D WEST	GSFC	A LOEB	NAG 5 3085	287
11	HARVARD UNIV	D WEST	GSFC	J GRINDLAY	NAG 5 3256	287
11	HARVARD UNIV	E SMITH	GSFC	R KIRSHNER	NAG 5 7768	289
11	HARVARD UNIV	H HASAN	GSFC	W H PARKINSON	NAG 5 4348	288
11	HARVARD UNIV	H HASAN	GSFC	W H PARKINSON	NAG 5 6569	288
11	HARVARD UNIV	H THRONSON	GSFC	P NAHUM	NAG 5 4522	288
11	HARVARD UNIV	J BERGSTRAHL	GSFC	D X SASSELOV	NAG 5 4216	287
11	HARVARD UNIV	J BOYCE	GSFC	A W CAMERON	NAG 5 8467	289
11	HARVARD UNIV	J BOYCE	GSFC	D B JACOBSEN	NAG 5 4430	288
11	HARVARD UNIV	J BOYCE	GSFC	D G CAMERON	NAG 5 4601	288
11	HARVARD UNIV	J BOYCE	HQ	A CAMERON	NAG 5 7610	289
11	HARVARD UNIV	J BOYCE	HQ	D SISTERSON	NAG 5 4302	288
11	HARVARD UNIV	J P NORRIS	GSFC	J E GRINDLAY	NAG 5 3808	287
11	HARVARD UNIV	J P NORRIS	GSFC	J E GRINDLAY	NAG 5 3890	287
11	HARVARD UNIV	J P NORRIS	GSFC	R NARAYAN	NAG 5 3516	287
11	HARVARD UNIV	J SWANK	GSFC	J E GRINDLAY	NAG 5 4053	287
11	HARVARD UNIV	J SWANK	GSFC	J GRINDLANY	NAG 5 7393	289
11	HARVARD UNIV	J SWANK	GSFC	J GRINDLAY	NAG 5 3298	287
11	HARVARD UNIV	J SWANK	GSFC	J GRINDLAY	NAG 5 7403	289
11	HARVARD UNIV	N WHITE	GSFC	J GRINDLAY	NAG 5 6994	288
11	HARVARD UNIV	R BEEBE	GSFC	W H PARKINSON	NAG 5 7859	289
11	HARVARD UNIV	R PETRE	GSFC	J E GRINDLAY	NAG 5 1624	286
11	HARVEY MUDD COLLEGE	D WEST	GSFC	A RUDOLPH	NAG 5 3406	55
11	HOWARD UNIV	M DIPIRRO	GSFC	A N THORPE	NAG 5 3141	161
11	HOWARD UNIV	R BEEBE	GSFC	H OKABE	NAG 5 6825	161
11	HOWARD UNIV	R BEEBE	GSFC	J HALPERN	NAG 5 6835	161
11	INDIANA UNIV - BLOOMINGTON	B MERRIT	WFF	J MUSSER	NAG 5 5224	224
11	INDIANA UNIV - BLOOMINGTON	D NAVA	GSFC	D BASU	NAG 5 4618	224
11	INDIANA UNIV - BLOOMINGTON	D WEST	GSFC	H N COHN	NAG 5 2781	224
11	INDIANA UNIV - BLOOMINGTON	D WEST	GSFC	STEIMAN-CAMERON	NAG 5 6773	224
11	INDIANA UNIV - BLOOMINGTON	J BOYCE	GSFC	D H DURISEN	NAG 5 4295	224
11	INDIANA UNIV - BLOOMINGTON	J BOYCE	HQ	D DURISEN	NAG 5 7514	225
11	INDIANA UNIV - BLOOMINGTON	J SWANK	GSFC	K HONEYCUTT	NAG 5 6406	224
11	INDIANA UNIV - BLOOMINGTON	J SWANK	GSFC	K HONEYCUTT	NAG 5 6884	225
11	INDIANA UNIV - BLOOMINGTON	J SWANK	GSFC	T STEIMAN-CAMERON	NAG 5 4409	224
11	INDIANA UNIV - BLOOMINGTON	J SWANK	GSFC	T STEIMAN-CAMERON	NAG 5 7491	225
11	INDIANA UNIV - BLOOMINGTON	P M CASSEN	ARC	T Y STEIMAN-CAMERON	NCC 2 1028	225
11	INDIANA UNIV - BLOOMINGTON	R PETRE	GSFC	R HONEYCUTT	NAG 5 3413	224
11	INDIANA UNIV - SOUTH BEND	D WEST	GSFC	S N SHORE	NAG 5 2612	225
11	IONA COLLEGE	J F DOWDY	MSFC	R NOVAK	NAG 8 1273	386
11	IOWA STATE UNIV	D K WEST	GSFC	S D KAWALER	NAG 5 4060	231
11	IOWA STATE UNIV	D K WEST	GSFC	S D KAWALER	NAG 5 8352	232
11	IOWA STATE UNIV	D WEST	GSFC	P N APPLETON	NAG 5 3317	231
11	IOWA STATE UNIV	J GRANT	GSFC	D J SCHEERES	NAG 5 7756	232
11	IOWA STATE UNIV	J P NORRIS	GSFC	D CARTER-LEWIS	NAG 5 3819	231
11	IOWA STATE UNIV	J SWANK	GSFC	M A CATANESE	NAG 5 7070	231
11	IOWA STATE UNIV	J SWANK	GSFC	M A CATANESE	NAG 5 7423	231
11	IOWA STATE UNIV	S COHN	GSFC	T C CHEN	NAG 5 2930	231
11	IOWA STATE UNIV	W WAGNER	GSFC	L A WILLSON	NAG 5 8465	232
11	JOHNS HOPKINS UNIV	B BETTS	GSFC	R L MCNUTT	NAG 5 8516	256
11	JOHNS HOPKINS UNIV	B CAMPBELL	GSFC	A F CHENG	NAG 5 7080	254
11	JOHNS HOPKINS UNIV	BEEBE	GSFC	D L DOMINQUE	NAG 5 8334	256
11	JOHNS HOPKINS UNIV	D B MOTT	GSFC	K R SEMBACH	NAG 5 3485	251
11	JOHNS HOPKINS UNIV	D C LING	GSFC	D M RUST	NAG 5 7921	255
11	JOHNS HOPKINS UNIV	D EVANS	GSFC	D G SIBECK	NAG 5 7920	255
11	JOHNS HOPKINS UNIV	D EVANS	GSFC	D Y LUI	NAG 5 7797	255
11	JOHNS HOPKINS UNIV	D K WEST	GSFC	A CONNOLLY	NAG 5 7934	255
11	JOHNS HOPKINS UNIV	D K WEST	GSFC	A S SZALAY	NAG 5 3503	251
11	JOHNS HOPKINS UNIV	D K WEST	GSFC	B R ESPEY	NAG 5 3704	251
11	JOHNS HOPKINS UNIV	D K WEST	GSFC	G R MEURER	NAG 5 8279	256
11	JOHNS HOPKINS UNIV	D K WEST	GSFC	J H KROLIK	NAG 5 3929	251
11	JOHNS HOPKINS UNIV	D K WEST	GSFC	K A WEAVER	NAG 5 3504	251
11	JOHNS HOPKINS UNIV	D K WEST	GSFC	R F WYSE	NAG 5 3928	251

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	JOHNS HOPKINS UNIV	D K WEST	GSFC	T HECKMAN	NAG 5 6400	253
11	JOHNS HOPKINS UNIV	D R MENGERS	GSFC	H W MOOS	NAS 5 32985	259
11	JOHNS HOPKINS UNIV	D WEST	GSFC	D A NEUFELD	NAG 5 3316	251
11	JOHNS HOPKINS UNIV	D WEST	GSFC	D A NEUFELD	NAG 5 3542	251
11	JOHNS HOPKINS UNIV	D WEST	GSFC	E ROELOF	NAG 5 6438	253
11	JOHNS HOPKINS UNIV	D WEST	GSFC	G A KRISS	NAG 5 3255	251
11	JOHNS HOPKINS UNIV	D WEST	GSFC	J N MURTHY	NAG 5 2398	250
11	JOHNS HOPKINS UNIV	E P SMITH	GSFC	R BURG	NAG 5 4736	252
11	JOHNS HOPKINS UNIV	G H MUCKLOW	GSFC	D G MITCHELL	NAG 5 8687	257
11	JOHNS HOPKINS UNIV	H HASAN	GSFC	D R MCCANDLISS	NAG 5 4261	252
11	JOHNS HOPKINS UNIV	J BOHLIN	GSFC	D G MITCHELL	NAG 5 6568	253
11	JOHNS HOPKINS UNIV	J BOYCE	GSFC	S L MURCHIE	NAG 5 8171	256
11	JOHNS HOPKINS UNIV	J BREDEKAMP	GSFC	S R NYLUND	NAG 5 8149	256
11	JOHNS HOPKINS UNIV	J BREDEKAMP	GSFC	S WING	NAG 5 7189	254
11	JOHNS HOPKINS UNIV	J H OWENS	MSFC	A F DAVIDSEN	NAS 5 27000	258
11	JOHNS HOPKINS UNIV	J J WOLFF	GSFC	D GRANT	NAS 5 97179	259
11	JOHNS HOPKINS UNIV	J JELETIC	GSFC	H FORD	NAG 5 1617	250
11	JOHNS HOPKINS UNIV	J JELETIC	GSFC	H FORD	NAG 5 7697	254
11	JOHNS HOPKINS UNIV	J K ALEXANDER	HQ	D M RUST	NAGW 2866	257
11	JOHNS HOPKINS UNIV	J LING	GSFC	D MCNUTT	NAG 5 6513	253
11	JOHNS HOPKINS UNIV	J SWANK	GSFC	K A WEAVER	NAG 5 4626	252
11	JOHNS HOPKINS UNIV	J SWANK	GSFC	K A WEAVER	NAG 5 7010	254
11	JOHNS HOPKINS UNIV	J WOLFF	GSFC	T COUGHLIN	NAS 5 97271	259
11	JOHNS HOPKINS UNIV	L KALUZIENSKI	GSFC	K A WEAVER	NAG 5 6917	254
11	JOHNS HOPKINS UNIV	M D DAVIS	GSFC	D C HENRY	NAG 5 3251	250
11	JOHNS HOPKINS UNIV	M E ROSENTHAL	MSFC	R GIACCONI	NAG 8 1133	257
11	JOHNS HOPKINS UNIV	M E ROSENTHAL	MSFC	R GIACCONI	NAG 8 1527	257
11	JOHNS HOPKINS UNIV	M MELLOTT	GSFC	P T NEWELL	NAG 5 7314	254
11	JOHNS HOPKINS UNIV	N WHITE	GSFC	A SZALAY	NAG 5 3419	251
11	JOHNS HOPKINS UNIV	N WHITE	GSFC	K WEAVER	NAG 5 6898	254
11	JOHNS HOPKINS UNIV	N WHITE	GSFC	R GRIFFITHS	NAG 5 2728	250
11	JOHNS HOPKINS UNIV	N WHITE	GSFC	T M HECKMAN	NAG 5 2548	250
11	JOHNS HOPKINS UNIV	R A STACHNIK	HQ	D W DUNHAM	NAGW 4716	258
11	JOHNS HOPKINS UNIV	R BEEBE	GSFC	C P PARANICAS	NAG 5 7863	255
11	JOHNS HOPKINS UNIV	R BEEBE	GSFC	D F APPLEBY	NAG 5 7621	254
11	JOHNS HOPKINS UNIV	R BEEBE	GSFC	D MAUK	NAG 5 8191	256
11	JOHNS HOPKINS UNIV	R BEEBE	GSFC	D STROBEL	NAG 5 7769	255
11	JOHNS HOPKINS UNIV	R POLIDAN	GSFC	G KRISS	NAG 5 6764	254
11	JOHNS HOPKINS UNIV	R POLIDAN	GSFC	W BLAIR	NAG 5 6732	253
11	JOHNS HOPKINS UNIV	R V STACHNIK	HQ	S CASERTANO	NAGW 3861	258
11	JOHNS HOPKINS UNIV	S CURTIS	GSFC	R GREEWALD	NAG 5 8361	256
11	JOHNS HOPKINS UNIV	T MORGAN	GSFC	H WEAVER	NAG 5 7186	254
11	JOHNS HOPKINS UNIV	W WAGNER	GSFC	D M RUST	NAG 5 7235	254
11	JOHNS HOPKINS UNIV	WWAGNER	GSFC	D M RUST	NAG 5 8331	256
11	KENNESAW STATE COLLEGE	F SIX	MSFC	T LAROSA	NAG 8 1107	195
11	KENT STATE UNIV	H HASAN	GSFC	D K YANG	NAG 5 3638	416
11	LAFAYETTE COLLEGE	J BOYCE	GSFC	D HOGENBOOM	NAG 5 4854	440
11	LAFAYETTE COLLEGE	J BOYCE	HQ	D L HOGENBOOM	NAG 5 7620	441
11	LOUISIANA STATE UNIV - BATON ROUGE	D K WEST	GSFC	G C CLAYTON	NAG 5 7933	243
11	LOUISIANA STATE UNIV - BATON ROUGE	D K WEST	GSFC	J FRANK	NAG 5 8497	243
11	LOUISIANA STATE UNIV - BATON ROUGE	D WEST	GSFC	G C CLAYTON	NAG 5 3338	242
11	LOUISIANA STATE UNIV - BATON ROUGE	D WEST	GSFC	G CHANMUGAM	NAG 5 3082	242
11	LOUISIANA STATE UNIV - BATON ROUGE	D WEST	GSFC	G CLAYTON	NAG 5 3531	242
11	LOUISIANA STATE UNIV - BATON ROUGE	J NORRIS	GSFC	J STACY	NAG 5 8100	243
11	LOUISIANA STATE UNIV - BATON ROUGE	J P NORRIS	GSFC	J STACY	NAG 5 7355	243
11	LOYOLA MARYMOUNT UNIV	D EVANS	GSFC	J SANNY	NAG 5 7050	55
11	MANKATO STATE UNIV	J P NORRIS	GSFC	J E HAKKILA	NAG 5 3591	326
11	MASSACHUSETTS INST OF TECH	C E WINKLER	MSFC	C R CANIZARES	NAS 8 38249	304
11	MASSACHUSETTS INST OF TECH	C P MCKAY	ARC	H B HAMMEL	NCC 2 1040	305
11	MASSACHUSETTS INST OF TECH	C PILCHER	HQ	B I BURKE	NAGW 1386	303
11	MASSACHUSETTS INST OF TECH	D C LING	GSFC	D J LAZARUS	NAG 5 7794	301
11	MASSACHUSETTS INST OF TECH	D C LING	GSFC	D J LAZARUS	NAG 5 7967	301
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	F A RASIO	NAG 5 8460	302
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	J HEWITT	NAG 5 3592	295
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	M H VAN PUTTEN	NAG 5 7012	299
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	S A RAPPAPORT	NAG 5 4057	296

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	S A RAPPAPORT	NAG 5 8368	302
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	V M KASPI	NAG 5 8063	301
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	W CUI	NAG 5 7990	301
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	W H LEWIN	NAG 5 3558	295
11	MASSACHUSETTS INST OF TECH	D WEST	GSFC	E BERTSCHINGER	NAG 5 2816	294
11	MASSACHUSETTS INST OF TECH	G MUCKLOW	GSFC	M W BAUTZ	NAG 5 8668	302
11	MASSACHUSETTS INST OF TECH	J BERGSTRALH	GSFC	B BURKE	NAG 5 6523	299
11	MASSACHUSETTS INST OF TECH	J BERGSTRALH	GSFC	D L ELLIOT	NAG 5 3940	296
11	MASSACHUSETTS INST OF TECH	J BERGSTRALH	GSFC	D P BINZEL	NAG 5 3939	296
11	MASSACHUSETTS INST OF TECH	J BOYCE	GSFC	K I PAULARENA	NAG 5 8720	302
11	MASSACHUSETTS INST OF TECH	J BOYCE	GSFC	M T ZUBER	NAG 5 8707	302
11	MASSACHUSETTS INST OF TECH	J BOYCE	HQ	P L GROVE	NAG 5 4768	297
11	MASSACHUSETTS INST OF TECH	J KING	GSFC	A J LAZARUS	NAG 5 584	294
11	MASSACHUSETTS INST OF TECH	J KING	GSFC	A J LAZARUS	NAG 5 8031	301
11	MASSACHUSETTS INST OF TECH	J LING	GSFC	K PAULARENA	NAG 5 6473	299
11	MASSACHUSETTS INST OF TECH	J N CUZZI	ARC	J L ELLIOT	NAG 2 855	292
11	MASSACHUSETTS INST OF TECH	J NORRIS	GSFC	H BRADT	NAG 5 3109	294
11	MASSACHUSETTS INST OF TECH	J P NORRIS	GSFC	G R RICKER	NAG 5 2165	294
11	MASSACHUSETTS INST OF TECH	J P NORRIS	GSFC	V KASPI	NAG 5 3597	295
11	MASSACHUSETTS INST OF TECH	J P NORRIS	GSFC	V KASPI	NAG 5 3683	295
11	MASSACHUSETTS INST OF TECH	J P NORRIS	GSFC	W LEWIN	NAG 5 3804	296
11	MASSACHUSETTS INST OF TECH	J P NORRIS	GSFC	W LEWIN	NAG 5 7806	301
11	MASSACHUSETTS INST OF TECH	J P NORRIS	GSFC	W LEWIN	NAG 5 7807	301
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	A LEVINE	NAG 5 3268	295
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	D CHAKRABARTY	NAG 5 4805	297
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	D CHAKRABARTY	NAG 5 7328	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	D CHAKRABARTY	NAG 5 7517	301
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	D CHAKRAGARTY	NAG 5 4114	296
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	E H MORGAN	NAG 5 7374	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	E MORGAN	NAG 5 3267	295
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	E MORGAN	NAG 5 3314	295
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	E MORGAN	NAG 5 6333	298
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	G CLARK	NAG 5 3281	295
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	G CLARK	NAG 5 4485	297
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	G W CLARK	NAG 5 7279	299
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	H V BRADT	NAG 5 7281	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	H V BRADT	NAG 5 8243	302
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	J RAPPAPORT	NAG 5 3236	294
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	R A REMILLARD	NAG 5 4400	297
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	R A REMILLARD	NAG 5 4870	297
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	R A REMILLARD	NAG 5 7375	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	R A REMILLARD	NAG 5 7480	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	R REMILLARD	NAG 5 3680	295
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	S A RAPPAPORT	NAG 5 7479	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	S A RAPPAPORT	NAG 5 8244	302
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	S RAPPAPORT	NAG 5 3594	295
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	S RAPPAPORT	NAG 5 4115	296
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	V KASPI	NAG 5 4014	296
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	V KASPI	NAG 5 4879	297
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	V KASPI	NAG 5 7131	299
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W CUI	NAG 5 7242	299
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W CUI	NAG 5 7424	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W CUI	NAG 5 7484	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 4135	296
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 4486	297
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 4636	297
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 4733	297
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7336	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7337	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7344	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7408	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7476	300
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7481	300
11	MASSACHUSETTS INST OF TECH	L J KALUZIENSKI	HQ	G RICKER	NAGW 2089	303
11	MASSACHUSETTS INST OF TECH	M A FORMAN	GSFC	D J LAZARUS	NAG 5 4833	297
11	MASSACHUSETTS INST OF TECH	M MEYER	GSFC	J GROTZINGER	NAG 5 6722	299

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	MASSACHUSETTS INST OF TECH	M MEYER	GSFC	S A BOWRING	NAG 5 8814	302
11	MASSACHUSETTS INST OF TECH	M S BURRELL	GSFC	G W CLARK	NGT 5 57	306
11	MASSACHUSETTS INST OF TECH	N B CUMINGS	MSFC	G RICKER	NAS 8 37716	304
11	MASSACHUSETTS INST OF TECH	N WHITE	GSFC	D DAVIS	NAG 5 3555	295
11	MASSACHUSETTS INST OF TECH	N WHITE	GSFC	G RICKER	NAG 5 2685	294
11	MASSACHUSETTS INST OF TECH	N WHITE	GSFC	G W CLARK	NAG 5 2540	294
11	MASSACHUSETTS INST OF TECH	N WHITE	GSFC	J KASTNER	NAG 5 4959	298
11	MASSACHUSETTS INST OF TECH	N WHITE	GSFC	J RAPPAPORT	NAG 5 3241	294
11	MASSACHUSETTS INST OF TECH	N WHITE	GSFC	V KASPI	NAG 5 4136	296
11	MASSACHUSETTS INST OF TECH	N WHITE	GSFC	W LEWIN	NAG 5 7028	299
11	MASSACHUSETTS INST OF TECH	N WHITE	GSFC	W LEWIS	NAG 5 2734	294
11	MASSACHUSETTS INST OF TECH	N WHITES	GSFC	D CANIZARES	NAG 5 2921	294
11	MASSACHUSETTS INST OF TECH	R BEEBE	GSFC	H B HAMMEL	NAG 5 8008	301
11	MASSACHUSETTS INST OF TECH	R PETRE	GSFC	M SCHATTENBURG	NCC 5 330	305
11	MASSACHUSETTS INST OF TECH	R PETRE	GSFC	P JOSS	NAG 5 2632	294
11	MASSACHUSETTS INST OF TECH	W DAVIS	GSFC	H BRADT	NAS 5 30612	303
11	MICHIGAN STATE UNIV	D K WEST	GSFC	A P LINNELL	NAG 5 3484	313
11	MICHIGAN STATE UNIV	W J WAGNER	GSFC	R F STEIN	NAG 5 4031	313
11	MICHIGAN TECHNOLOGICAL UNIV	D K WEST	GSFC	A BORYSOW	NAG 5 3689	314
11	MICHIGAN TECHNOLOGICAL UNIV	J P NORRIS	GSFC	R J NEMIROFF	NAG 5 3279	314
11	MICHIGAN TECHNOLOGICAL UNIV	J P NORRIS	GSFC	R J NEMIROFF	NAG 5 4756	314
11	MIDDLEBURY COLLEGE	D K WEST	GSFC	P WINKLER	NAG 5 8020	505
11	MIDDLEBURY COLLEGE	W J WAGNER	GSFC	P WOLFSON	NAG 5 6118	505
11	MISSISSIPPI STATE UNIV	W K ANDERSON	LARC	J C NEWMAN	NCC 1 286	334
11	MONTANA STATE UNIV	D K WEST	GSFC	S K LINK	NAG 5 3688	341
11	MONTANA STATE UNIV	D WEST	GSFC	S TSURUTA	NAG 5 3159	341
11	MONTANA STATE UNIV	J DASCH	GSFC	W HASCOCK	NCC 5 240	342
11	MONTANA STATE UNIV	M J HAGYARD	MSFC	R C CANFIELD	NAG 8 1399	342
11	MONTANA STATE UNIV	M MEYER	GSFC	D M WARD	NAG 5 8824	342
11	MONTANA STATE UNIV	M MEYER	GSFC	T R MCDERMOTT	NAG 5 8807	342
11	MONTANA STATE UNIV	W WAGNER	GSFC	D CANFIELD	NAG 5 6110	342
11	MONTANA STATE UNIV	W WAGNER	GSFC	D W LONGCOPE	NAG 5 7296	342
11	MONTANA STATE UNIV	D NAVA	GSFC	D O COLSON	NAG 5 4904	326
11	MOORHEAD STATE UNIV	J BOYCE	HQ	R O COLSON	NAG 5 7366	326
11	MOREHOUSE COLLEGE	J BERGSTRAHL	GSFC	J KING	NAG 5 6602	195
11	MORGAN STATE UNIV	C SOFFEN	GSFC	E DELOATCH	NAG 5 3508	259
11	NEW JERSEY INST OF TECH	A POLAND	GSFC	D WANG	NAG 5 3536	355
11	NEW JERSEY INST OF TECH	D EVANS	GSFC	P R GOODE	NAG 5 7454	356
11	NEW JERSEY INST OF TECH	D WEST	GSFC	M A WOOD	NAG 5 3103	355
11	NEW JERSEY INST OF TECH	H NEEDLEMAN	GSFC		NAG 5 5144	355
11	NEW JERSEY INST OF TECH	J P NORRIS	GSFC	H WANG	NAG 5 3088	355
11	NEW JERSEY INST OF TECH	J P NORRIS	GSFC	H WANG	NAG 5 3663	355
11	NEW JERSEY INST OF TECH	W J WAGNER	GSFC	D R GOODE	NAG 5 4919	355
11	NEW JERSEY INST OF TECH	W J WANGER	GSFC	H WANG	NAG 5 8329	356
11	NEW JERSEY INST OF TECH	W WAGNER	GSFC	D E GARY	NAG 5 8466	356
11	NEW JERSEY INST OF TECH	W WAGNER	GSFC	H WANG	NAG 5 7085	355
11	NEW JERSEY INST OF TECH	W WAGNER	GSFC	M F WOODARD	NAG 5 8485	356
11	NEW MEXICO HIGHLANDS UNIV	T MORGAN	GSFC	D V RYAN	NAG 5 8734	363
11	NEW MEXICO INST OF MINING & TECH	M Y WEI	GSFC	F M PHILLIPS	NGT 5 30169	364
11	NEW MEXICO STATE UNIV - LAS CRUCES	B A MERRITT	GSFC	S J STOCHAJ	NAG 5 5159	365
11	NEW MEXICO STATE UNIV - LAS CRUCES	C P MCKAY	ARC	M MARLEY	NAG 2 6007	364
11	NEW MEXICO STATE UNIV - LAS CRUCES	D C LING	GSFC	D J CHANOVER	NAG 5 7904	366
11	NEW MEXICO STATE UNIV - LAS CRUCES	D C LING	GSFC	D R WEBBER	NAG 5 7795	366
11	NEW MEXICO STATE UNIV - LAS CRUCES	D K WEST	GSFC	A KLYPIN	NAG 5 3842	365
11	NEW MEXICO STATE UNIV - LAS CRUCES	D K WEST	GSFC	A KLYPIN	NAG 5 8242	366
11	NEW MEXICO STATE UNIV - LAS CRUCES	D WEST	GSFC	J O BURNS	NAG 5 3362	365
11	NEW MEXICO STATE UNIV - LAS CRUCES	D WEST	GSFC	R A WALTERBOS	NAG 5 2426	364
11	NEW MEXICO STATE UNIV - LAS CRUCES	F C JONES	GSFC	W R WEBBER	NAG 5 7524	365
11	NEW MEXICO STATE UNIV - LAS CRUCES	J P NORRIS	GSFC	B J MCNAMARA	NAG 5 3698	365
11	NEW MEXICO STATE UNIV - LAS CRUCES	J P NORRIS	GSFC	T E HARRISON	NAG 5 3114	364
11	NEW MEXICO STATE UNIV - LAS CRUCES	J SWANK	GSFC	T HARRISON	NAG 5 4402	365
11	NEW MEXICO STATE UNIV - LAS CRUCES	N WHITE	GSFC	J BURNS	NAG 5 3410	365
11	NEW MEXICO STATE UNIV - LAS CRUCES	R E STREITMATTER	GSFC	M S MARLEY	NGT 51383	366
11	NEW MEXICO STATE UNIV - LAS CRUCES	R PETRE	GSFC	M LEDLOW	NAG 5 3312	365
11	NORFOLK STATE UNIV	R E STREITMATTER	GSFC	C W SALGADO	NAG 5 8653	515
11	NORTH CAROLINA A&T STATE UNIV	D WEST	GSFC	J M BLONDIN	NAG 5 3110	401

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	NORTH CAROLINA STATE UNIV	D K WEST	GSFC	S P REYNOLDS	NAG 5 7153	404
11	NORTH CAROLINA STATE UNIV	D WEST	GSFC	S P REYNOLDS	NAG 5 2844	403
11	NORTH CAROLINA STATE UNIV	N WHITE	GSFC	K BORKOWSKI	NAG 5 7406	404
11	NORTH CAROLINA STATE UNIV	R PETRE	GSFC	S REYNOLDS	NAG 5 3415	403
11	NORTH DAKOTA STATE UNIV	R PATER	LARC	M SOUCEK	NGT 1 52159	407
11	NORTHEAST LOUISIANA UNIV	J M BOYCE	GSFC	D A DE HON	NAG 5 4293	244
11	NORTHERN ARIZONA UNIV	D NAVA	GSFC	D TEGLER	NAG 5 4357	27
11	NORTHERN ARIZONA UNIV	J BERGSTRAHLH	GSFC	C GRIFFITH	NAG 5 8525	28
11	NORTHERN ARIZONA UNIV	J BERGSTRAHLH	GSFC	D BARNES	NAG 5 4995	28
11	NORTHERN ARIZONA UNIV	J BOYCE	GSFC	D L LUTZ	NAG 5 4385	28
11	NORTHERN ARIZONA UNIV	J BOYCE	HQ	C A GRIFFITH	NAG 5 8146	28
11	NORTHERN ARIZONA UNIV	J BOYCE	HQ	D M CORNELISON	NAG 5 8203	28
11	NORTHERN ARIZONA UNIV	J BOYCE	HQ	S TEGLER	NAG 5 7210	28
11	NORTHERN ARIZONA UNIV	T MORGAN	GSFC	C A GRIFFITH	NAG 5 6790	28
11	NORTHERN ARIZONA UNIV	T MORGAN	GSFC	S C TEGLER	NAG 5 7757	28
11	NORTHERN ARIZONA UNIV	W HUEBNER	GSFC	D A GRIFFITH	NAG 5 4852	28
11	NORTHWESTERN UNIV	D K WEST	GSFC	R E TAAM	NAG 5 7011	210
11	NORTHWESTERN UNIV	D M WEST	GSFC	S M MATZ	NAG 5 8255	210
11	NORTHWESTERN UNIV	D WEST	GSFC	M ULMER	NAG 5 2432	209
11	NORTHWESTERN UNIV	D WEST	GSFC	Q WANG	NAG 5 6413	209
11	NORTHWESTERN UNIV	D WEST	GSFC	Q WANG	NAG 5 6847	210
11	NORTHWESTERN UNIV	H HASAN	GSFC	B W WESSELS	NAG 5 6730	209
11	NORTHWESTERN UNIV	H HASAN	GSFC	D S FINN	NAG 5 4260	209
11	NORTHWESTERN UNIV	J BOYCE	HQ	M S ROBINSON	NAG 5 8294	210
11	NORTHWESTERN UNIV	J P NORRIS	GSFC	D A GRABELSKY	NAG 5 3816	209
11	NORTHWESTERN UNIV	J P NORRIS	GSFC	M P ULMER	NAG 5 3490	209
11	NORTHWESTERN UNIV	J P NORRIS	GSFC	M P ULMER	NAG 5 7889	210
11	NORTHWESTERN UNIV	J P NORRIS	GSFC	S M MATZ	NAG 5 3588	209
11	NORTHWESTERN UNIV	J P NORRIS	GSFC	S M MATZ	NAG 5 7894	210
11	NORTHWESTERN UNIV	J P NORRIS	GSFC	S M MATZ	NAG 5 8023	210
11	NORTHWESTERN UNIV	J P NORRIS	GSFC	W R PURCELL	NAG 5 2822	209
11	NORTHWESTERN UNIV	J P NORRIS	GSFC	W R PURCELL	NAG 5 4240	209
11	NORTHWESTERN UNIV	J SWANK	GSFC	M P ULMER	NAG 5 7280	210
11	NORTHWESTERN UNIV	J SWANK	GSFC	M ULMER	NAG 5 6927	210
11	NORTHWESTERN UNIV	P ROGERS	GSFC	M ROBINSON	NAG 5 6824	210
11	OHIO STATE UNIV	D K WEST	GSFC	A K PRADHAN	NAG 5 8423	420
11	OHIO STATE UNIV	D K WEST	GSFC	B M PETERSON	NAG 5 3497	418
11	OHIO STATE UNIV	D K WEST	GSFC	D H WEINBERG	NAG 5 3525	418
11	OHIO STATE UNIV	D K WEST	GSFC	M H PINSONNEAULT	NAG 5 7150	419
11	OHIO STATE UNIV	D WEST	GSFC	A PRADHAN	NAG 5 6908	419
11	OHIO STATE UNIV	D WEST	GSFC	D H WEINBERG	NAG 5 3111	418
11	OHIO STATE UNIV	D WEST	GSFC	P ESKRIDGE	NAG 5 7116	419
11	OHIO STATE UNIV	J BOYCE	GSFC	D L DEPOY	NAG 5 8313	419
11	OHIO STATE UNIV	J BOYCE	HQ	D L DEPOY	NAG 5 7589	419
11	OHIO STATE UNIV	J P NORRIS	GSFC	R M WAGNER	NAG 5 2355	418
11	OHIO STATE UNIV	J P NORRIS	GSFC	R WAGNER	NAG 5 3817	418
11	OHIO STATE UNIV	J P NORRIS	GSFC	R WAGNER	NAG 5 7029	419
11	OHIO STATE UNIV	J SWANK	GSFC	M WAGNER	NAG 5 3305	418
11	OHIO STATE UNIV	J SWANK	GSFC	M WAGNER	NAG 5 4239	418
11	OHIO STATE UNIV	L J CAROFF	HQ	E HERBST	NAGW 2906	420
11	OHIO UNIV	D K WEST	GSFC	J C SHIELDS	NAG 5 3563	422
11	OHIO UNIV	D K WEST	GSFC	J C SHIELDS	NAG 5 3690	422
11	OHIO UNIV	D WEST	GSFC	T STATLER	NAG 5 3050	422
11	OLD DOMINION UNIV	G ASRAR	GSFC	E HOFMANN	NCC 5 258	519
11	OLD DOMINION UNIV	M G MACARAEG	LARC	P BALAKUMAR	NAG 1 1677	515
11	OREGON STATE UNIV	D NAVA	GSFC	D DALRYMPLE	NAG 5 4542	432
11	OREGON STATE UNIV	J BOYCE	HQ	J R BARNES	NAG 5 8182	434
11	OREGON STATE UNIV	M MEYER	GSFC	B T SIMONEIT	NAG 5 7694	434
11	OREGON STATE UNIV	R PETRE	GSFC	F A PRIMINI	NAG 5 4960	433
11	PENN	D WEST	GSFC	R F KNACKE	NAG 5 3368	441
11	PENN STATE UNIV	D HOLLAND	HQ	J CHARLTON	NGT 51638	449
11	PENN STATE UNIV	D K WEST	GSFC	D N BURROWS	NAG 5 3489	444
11	PENN STATE UNIV	D K WEST	GSFC	E D FEIGELSON	NAG 5 8422	447
11	PENN STATE UNIV	D K WEST	GSFC	G G PAVLOV	NAG 5 7017	446
11	PENN STATE UNIV	D K WEST	GSFC	G PAVLOV	NAG 5 6907	446
11	PENN STATE UNIV	D K WEST	GSFC	G PAVLOV	NAG 5 7900	447

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	PENN STATE UNIV	D K WEST	GSFC	J NOUSEK	NAG 5 6906	446
11	PENN STATE UNIV	D K WEST	GSFC	M ERACELOUS	NAG 5 8369	447
11	PENN STATE UNIV	D K WEST	GSFC	R M SAMBRUNA	NAG 5 7925	447
11	PENN STATE UNIV	D K WEST	GSFC	W N BRANDT	NAG 5 8107	447
11	PENN STATE UNIV	D NAVA	GSFC	D WOLSZCZAN	NAG 5 4301	444
11	PENN STATE UNIV	D VANDEMARK	GSFC	N WHITE	NAG 5 5145	445
11	PENN STATE UNIV	D WEST	GSFC	D BURROWS	NAG 5 3166	443
11	PENN STATE UNIV	D WEST	GSFC	J CHARLTON	NAG 5 6399	445
11	PENN STATE UNIV	D WEST	GSFC	M AKRITAS	NAG 5 6737	446
11	PENN STATE UNIV	D WEST	GSFC	P MESZAROS	NAG 5 2857	443
11	PENN STATE UNIV	D WEST	GSFC	R A WADE	NAG 5 1698	443
11	PENN STATE UNIV	D WEST	GSFC	R A WADE	NAG 5 3459	443
11	PENN STATE UNIV	G SOFFEN	GSFC	A M CARLETON	NGT 5 67	450
11	PENN STATE UNIV	J P NORRIS	GSFC	P MESZAROB	NAG 5 3801	444
11	PENN STATE UNIV	J SWANK	GSFC	M V FILIPPENKO	NAG 5 7733	447
11	PENN STATE UNIV	J SWANK	GSFC	R KOLLGUARD	NAG 5 3270	443
11	PENN STATE UNIV	J SWANK	GSFC	R M SAMBRUNA	NAG 5 7121	446
11	PENN STATE UNIV	J SWANK	GSFC	R SAMBRUNA	NAG 5 7276	446
11	PENN STATE UNIV	J SWANK	GSFC	W BRANDT	NAG 5 6852	446
11	PENN STATE UNIV	J SWANK	GSFC	W N BRANDT	NAG 5 7256	446
11	PENN STATE UNIV	J SWANK	GSFC	W N BRANDT	NAG 5 7282	446
11	PENN STATE UNIV	L HILLARD	GSFC	J NOUSEK	NAG 5 8401	447
11	PENN STATE UNIV	M MEYER	GSFC	J F KASTING	NAG 5 8710	447
11	PENN STATE UNIV	N B CUMINGS	MSFC	G P GARMERE	NAS 8 38252	448
11	PENN STATE UNIV	N WHITE	GSFC	E FEIGELSON	NAG 5 6768	446
11	PENN STATE UNIV	R PETRE	GSFC	W BRANDT	NAG 5 4826	444
11	PENN STATE UNIV	R PETRE	GSFC	W BRANDT	NAG 5 6023	445
11	PENN STATE UNIV	S HUNTER	GSFC	T JACKSON	NAG 5 8795	447
11	PENN STATE UNIV	V SCHNEIDER	GSFC	P CAVANAGH	NAG 5 6199	445
11	PRAIRIE VIEW A&M UNIV	J M DAVIS	MSFC	T HUANG	NAG 8 1338	473
11	PRINCETON UNIV	A NURRIDIN	HQ	M YAMADA	NGT 5 50193	360
11	PRINCETON UNIV	D K WEST	GSFC	B PACZYNSKI	NAG 5 7016	357
11	PRINCETON UNIV	D K WEST	GSFC	D N SPERGEL	NAG 5 7154	357
11	PRINCETON UNIV	D K WEST	GSFC	G R KNAPP	NAG 5 8083	358
11	PRINCETON UNIV	D K WEST	GSFC	J N BACHALL	NAG 5 7047	357
11	PRINCETON UNIV	D K WEST	GSFC	R CEN	NAG 5 8365	358
11	PRINCETON UNIV	D K WEST	GSFC	S D TREMAINE	NAG 5 7066	357
11	PRINCETON UNIV	D K WEST	GSFC	U SELJAK	NAG 5 8084	358
11	PRINCETON UNIV	D VITAGLINO	GSFC	E JENKINS	NAS 5 30110	358
11	PRINCETON UNIV	D WEST	GSFC	G KNAPP	NAG 5 6734	357
11	PRINCETON UNIV	D WEST	GSFC	G R KNAPP	NAG 5 3364	357
11	PRINCETON UNIV	D WEST	GSFC	J GOODMAN	NAG 5 2796	357
11	PRINCETON UNIV	DK WEST	GSFC	B T DRAINE	NAG 5 7030	357
11	PRINCETON UNIV	J BOYCE	GSFC	J GOODMAN	NAG 5 8385	358
11	PRINCETON UNIV	J BOYCE	HQ	S D TREMAINE	NAG 5 7310	358
11	PRINCETON UNIV	R CUDDAPAH	GSFC	D WILKINSON	NAS 5 96021	359
11	PRINCETON UNIV	S SOBIESKI	GSFC	E J GROTH	NAG 5 1629	357
11	PRINCETON UNIV	W WAGNER	GSFC	D KUMAR	NAG 5 7395	358
11	PURDUE UNIV	D K WEST	GSFC	J P FINLEY	NAG 5 3426	227
11	PURDUE UNIV	D NAVA	GSFC	D E LIPSCHUTZ	NAG 5 4304	227
11	PURDUE UNIV	J P NORRIS	GSFC	J FINLEY	NAG 5 3589	227
11	PURDUE UNIV	J SWANK	GSFC	J FINLEY	NAG 5 3294	227
11	PURDUE UNIV	J SWANK	GSFC	J P FINLEY	NAG 5 3833	227
11	PURDUE UNIV	J SWANK	GSFC	J P FINLEY	NAG 5 4481	227
11	PURDUE UNIV	J SWANK	GSFC	J P FINLEY	NAG 5 6918	227
11	PURDUE UNIV	J SWANK	GSFC	J P FINLEY	NAG 5 7387	228
11	PURDUE UNIV	J SWANK	GSFC	J P FINLEY	NAG 5 7388	228
11	PURDUE UNIV	R BEEBE	GSFC	T ZWIER	NAG 5 8155	228
11	RENSSELAER POLYTECH INST	D G TIELENS	ARC	P ROBERGE	NCC 2 5168	389
11	RENSSELAER POLYTECH INST	D K WEST	GSFC	D C WHITTET	NAG 5 3376	388
11	RENSSELAER POLYTECH INST	D K WEST	GSFC	D C WHITTET	NAG 5 7884	388
11	RENSSELAER POLYTECH INST	D WEST	GSFC	D C WHITTET	NAG 5 3339	388
11	RENSSELAER POLYTECH INST	D WEST	GSFC	D WHITTET	NAG 5 7410	388
11	RENSSELAER POLYTECH INST	M A MEYER	GSFC	D P FERRIS	NAG 5 7598	388
11	RHODES COLLEGE	M FORMAN	GSFC	D MACQUEEN	NAG 5 6049	466
11	RICE UNIV	D EVANS	GSFC	D W HILL	NAG 5 8131	476

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	RICE UNIV	D GOORVITCH	ARC	R J DUFOUR	NCC 2 5199	477
11	RICE UNIV	D J HOLLENBACH	ARC	D J DUFOUR	NGT 2 52252	477
11	RICE UNIV	D K WEST	GSFC	E T LIANG	NAG 5 4055	475
11	RICE UNIV	D WEST	GSFC	F C MICHEL	NAG 5 3070	475
11	RICE UNIV	G A SOFFEN	GSFC	P A CLOUTIER	NGT 5 34	477
11	RICE UNIV	J BOYCE	HQ	D HEYMANN	NAGW 4173	476
11	RICE UNIV	J P NORRIS	GSFC	E P LIANG	NAG 5 7980	475
11	RICE UNIV	J SWANK	GSFC	E LIANG	NAG 5 6411	475
11	RICE UNIV	J SWANK	GSFC	R H GOMER	NAG 5 7642	475
11	RICE UNIV	JP NORRIS	GSFC	E P LIANG	NAG 5 3824	475
11	RICE UNIV	N LAL	GSFC	P REIF	NAG 5 2689	474
11	RICE UNIV	S SOBIESKI	GSFC	C R O	NAG 5 1626	474
11	ROCHESTER INST OF TECH	H HASAN	GSFC	D NINKOV	NAG 5 3728	389
11	ROCHESTER INST OF TECH	T KOSTIUK	HQ	Z NINKEY	NAGW 4135	389
11	ROWAN UNIV	T MORGAN	GSFC	K MAGEE-SAUER	NAG 5 6776	360
11	RUTGERS STATE UNIV - PISCATAWAY	D K WEST	GSFC	A B KOSOWSKY	NAG 5 7015	361
11	RUTGERS STATE UNIV - PISCATAWAY	D K WEST	GSFC	D MERRITT	NAG 5 6037	361
11	RUTGERS STATE UNIV - PISCATAWAY	D K WEST	GSFC	J P HUGHES	NAG 5 3432	360
11	RUTGERS STATE UNIV - PISCATAWAY	D NAVA	GSFC	D F HERZOG	NAG 5 4327	360
11	RUTGERS STATE UNIV - PISCATAWAY	D WEST	GSFC	D MERRITT	NAG 5 2803	360
11	RUTGERS STATE UNIV - PISCATAWAY	H HASAN	GSFC	C L JOSEPH	NAG 5 6614	361
11	RUTGERS STATE UNIV - PISCATAWAY	J BERGSTRALH	HQ	T E MADEY	NAGW 5232	361
11	RUTGERS STATE UNIV - PISCATAWAY	J BOYCE	GSFC	R H HEWINS	NAG 5 4597	360
11	RUTGERS STATE UNIV - PISCATAWAY	J BOYCE	HQ	D HEWINS	NAG 5 4472	360
11	RUTGERS STATE UNIV - PISCATAWAY	J BOYCE	HQ	J S DELANEY	NAG 5 8820	361
11	RUTGERS STATE UNIV - PISCATAWAY	KRUEGER	GSFC	C L JOSEPH	NAG 5 3158	360
11	RUTGERS STATE UNIV - PISCATAWAY	N WHITE	GSFC	J HUGHES	NAG 5 4794	360
11	RUTGERS STATE UNIV - PISCATAWAY	W WAGNER	GSFC	C L JOSEPH	NAG 5 7148	361
11	SAINT CLOUD STATE UNIV	W HUEBNER	GSFC	D P WOMACK	NAG 5 6726	326
11	SAN FRANCISCO STATE UNIV	J BOYCE	GSFC	D W MARCY	NAG 5 7459	56
11	SAN FRANCISCO STATE UNIV	J BOYCE	HQ	D W MARCY	NAG 5 8299	57
11	SAN FRANCISCO STATE UNIV	J N CUZZI	ARC	G K BENEDIX	NCC 2 997	57
11	SAN JOSE STATE UNIV	A BARNES	ARC	P HAMILL	NCC 2 687	58
11	SAN JOSE STATE UNIV	D J HOLLEN	ARC	M J KAUFMAN	NCC 2 5338	60
11	SAN JOSE STATE UNIV	K ZAHALE	ARC	P J HAMILL	NCC 2 984	58
11	SAN JOSE STATE UNIV	L ALLAMANDOLA	ARC	B M STONE	NCC 2 5210	59
11	SAN JOSE STATE UNIV	R M HABERLE	ARC	S S RAFKIN	NCC 2 5326	60
11	SMITH COLLEGE	D K WEST	GSFC	B M PATTEN	NAG 5 8120	307
11	SONOMA STATE UNIV	J SWANK	GSFC	L COMINSKY	NAG 5 3324	61
11	SONOMA STATE UNIV	J SWANK	GSFC	L COMINSKY	NAG 5 3702	61
11	SONOMA STATE UNIV	J SWANK	GSFC	L COMINSKY	NAG 5 4403	61
11	SONOMA STATE UNIV	N GEHRELS	GSFC	D COMINSKY	NAG 5 7267	61
11	SONOMA STATE UNIV	N GEHRELS	GSFC	L R COMINSKY	NAG 5 8603	61
11	SONOMA STATE UNIV	N WHITE	GSFC	L COMINSKY	NAG 5 2948	61
11	SOUTH DAKOTA STATE UNIV	D L WILLIAMS	GSFC	D HELDER	NAG 5 3445	464
11	STANFORD UNIV	A I POLAND	GSFC	P H SCHERRER	NAG 5 3077	63
11	STANFORD UNIV	B BETTS	GSFC	G TYLER	NAG 5 6655	65
11	STANFORD UNIV	D WEST	GSFC	R V WAGONER	NAG 5 3102	63
11	STANFORD UNIV	D WEST	GSFC	R W ROMANI	NAG 5 3101	63
11	STANFORD UNIV	D WEST	GSFC	R W ROMANI	NAG 5 3263	63
11	STANFORD UNIV	G D HOLMAN	GSFC	V PETROSIAN	NAG 5 8600	66
11	STANFORD UNIV	H HASAN	GSFC	A C WALKER	NAG 5 7464	65
11	STANFORD UNIV	H HASAN	GSFC	D A LIPA	NAG 5 3985	64
11	STANFORD UNIV	J BERGSTRALH	HQ	V R ESHLEMAN	NAGW 5223	66
11	STANFORD UNIV	J BOYCE	GSFC	P H SCHERRER	NAG 5 8714	66
11	STANFORD UNIV	J BOYCE	HQ	R ZARE	NAG 5 7208	65
11	STANFORD UNIV	J BOYCE	HQ	T IRELAND	NAG 5 7609	65
11	STANFORD UNIV	J GRADY	GSFC	B CABRERA	NAS 5 98151	67
11	STANFORD UNIV	J M BOYCE	GSFC	R N ZARE	NAG 5 4936	64
11	STANFORD UNIV	J N CUZZI	ARC	A L TYLER	NCC 2 908	67
11	STANFORD UNIV	J N NORRIS	GSFC	V PETROSIAN	NAG 5 3682	63
11	STANFORD UNIV	J P NORRIS	GSFC	V PETROSIAN	NAG 5 7874	65
11	STANFORD UNIV	J SWANK	GSFC	P F MICHELSON	NAG 5 7468	65
11	STANFORD UNIV	J SWANK	GSFC	P MICHELSON	NAG 5 3322	63
11	STANFORD UNIV	J SWANK	GSFC	P MICHELSON	NAG 5 7535	65
11	STANFORD UNIV	M D JOSEPH	GSFC	P MICHELSON	NAS 5 98039	67

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	STANFORD UNIV	N GEHRELS	GSFC	P F MICHELSON	NCC 5 214	69
11	STANFORD UNIV	N WHITE	GSFC	P MICHELSON	NAG 5 3332	63
11	STANFORD UNIV	R H THOMAS	GSFC	P CABRERA	NAG 5 3775	63
11	STANFORD UNIV	R PETRE	GSFC	R ROMANI	NAG 5 2706	63
11	STANFORD UNIV	W J WAGNER	GSFC	D H SCHERRER	NAG 5 6112	64
11	STANFORD UNIV	W WAGNER	GSFC	V PETROSIAN	NAG 5 7144	65
11	STATE UNIV OF NY - ALBANY	D F NAVA	GSFC	D W DELANO	NAG 5 4706	390
11	STATE UNIV OF NY - ALBANY	D WICKLAND	GSFC	D R FITZJARRALD	NAG 5 6227	390
11	STATE UNIV OF NY - BUFFALO	B BETTS	GSFC	J GRANT	NAG 5 8701	391
11	STATE UNIV OF NY - STONY BROOK	D K WEST	GSFC	F M WALTER	NAG 5 7978	393
11	STATE UNIV OF NY - STONY BROOK	D K WEST	GSFC	F M WALTER	NAG 5 8427	393
11	STATE UNIV OF NY - STONY BROOK	D K WEST	GSFC	F M WALTER	NAG 5 8437	393
11	STATE UNIV OF NY - STONY BROOK	D K WEST	GSFC	M SIMON	NAG 5 8462	393
11	STATE UNIV OF NY - STONY BROOK	D WEST	GSFC	J M LATTIMER	NAG 5 2863	392
11	STATE UNIV OF NY - STONY BROOK	D WEST	GSFC	K M LANZETTA	NAG 5 3261	392
11	STATE UNIV OF NY - STONY BROOK	D WEST	GSFC	P M SOLOMON	NAG 5 3297	392
11	STATE UNIV OF NY - STONY BROOK	G ASRAR	GSFC	E CARPENTER	NAG 5 6565	393
11	STATE UNIV OF NY - STONY BROOK	J BERGSTRAHL	GSFC	D LISSAUER	NAG 5 6544	393
11	STATE UNIV OF NY - STONY BROOK	J BERGSTRAHL	GSFC	F WALTER	NAG 5 6408	393
11	STATE UNIV OF NY - STONY BROOK	J BOYCE	GSFC	D J LISSAUER	NAG 5 4640	392
11	STATE UNIV OF NY - STONY BROOK	J BOYCE	HQ	S M MCLENNAN	NAG 5 8169	393
11	STATE UNIV OF NY - STONY BROOK	J LING	GSFC	D A FORMAN	NAG 5 8106	393
11	STATE UNIV OF NY - STONY BROOK	J M BOYCE	GSFC	D J SIMON	NAG 5 4498	392
11	STATE UNIV OF NY - STONY BROOK	N WHITE	GSFC	F M WALTER	NAG 5 4792	392
11	STATE UNIV OF NY - STONY BROOK	N WHITE	GSFC	F M WALTER	NAG 5 4862	392
11	STATE UNIV OF NY - STONY BROOK	P ROGERS	HQ	J LISSAUER	NAGW 4040	394
11	STATE UNIV OF NY - STONY BROOK	R BEEBE	GSFC	J L FOX	NAG 5 6879	393
11	STATE UNIV OF NY - STONY BROOK	R J OLIVERSEN	GSFC	F M WALTER	NAG 5 7391	393
11	STATE UNIV OF NY COL - PLATTSBURGH	J BOYCE	GSFC	G J FLYNN	NAG 5 6102	394
11	STATE UNIV OF NY COL - PURCHASE	D NAVA	GSFC	D J FLYNN	NAG 5 4843	395
11	SYRACUSE UNIV	H HASAN	GSFC	G VIDALI	NAG 5 6822	396
11	SYRACUSE UNIV	H THRONSON	GSFC	G VIDALID	NAG 5 4998	395
11	TENNESSEE STATE UNIV	B L WHITE	HQ	M R BUSBY	NCCW 85	466
11	TEXAS CHRISTIAN UNIV	D K WEST	GSFC	P MARCUM	NAG 5 7040	483
11	THE AMERICAN UNIV	J NUTH	GSFC	N ROSCHER	NCC 5 175	162
11	THE CATHOLIC UNIV OF AMERICA	A I POLAND	GSFC	V ANDRETTA	NCC 5 377	166
11	THE CATHOLIC UNIV OF AMERICA	A M SMITH	GSFC	C H LYU	NAG 5 1414	163
11	THE CATHOLIC UNIV OF AMERICA	A SMITH	GSFC	F C BRUHWEILER	NAG 5 1413	163
11	THE CATHOLIC UNIV OF AMERICA	B E WOODGATE	GSFC	F C BRUHWEILER	NAG 5 8752	165
11	THE CATHOLIC UNIV OF AMERICA	B WOODGATE	GSFC	F C BRUHWEILER	NAG 5 8622	165
11	THE CATHOLIC UNIV OF AMERICA	C BOWERS	GSFC	F BRUHWEILER	NAG 5 6026	164
11	THE CATHOLIC UNIV OF AMERICA	D K WEST	GSFC	C R PROFFITT	NAG 5 8276	165
11	THE CATHOLIC UNIV OF AMERICA	D K WEST	GSFC	F C BRUNHWEILER	NAG 5 3487	163
11	THE CATHOLIC UNIV OF AMERICA	D LECKRONE	GSFC	F BRUHWEILER	NAG 5 6674	164
11	THE CATHOLIC UNIV OF AMERICA	D NAVA	GSFC	D DICKINSON	NAG 5 4345	163
11	THE CATHOLIC UNIV OF AMERICA	D P CRUIKSHANK	ARC	V A KRASNOPOLSKY	NCC 2 994	165
11	THE CATHOLIC UNIV OF AMERICA	D WEST	GSFC	M SMITH	NAG 5 8793	165
11	THE CATHOLIC UNIV OF AMERICA	G SONNEBORN	GSFC	F C BRUHWEILER	NAG 5 8631	165
11	THE CATHOLIC UNIV OF AMERICA	J BOYCE	GSFC	R D STARR	NAG 5 8529	165
11	THE CATHOLIC UNIV OF AMERICA	J BOYCE	GSFC	T DICKINSON	NAG 5 8508	165
11	THE CATHOLIC UNIV OF AMERICA	J PEARL	GSFC	D D SMITH	NAG 5 7132	164
11	THE CATHOLIC UNIV OF AMERICA	J SLAVIN	GSFC	Y WHANG	NAG 5 7700	164
11	THE CATHOLIC UNIV OF AMERICA	J SWANK	GSFC	F LANG	NAG 5 4418	163
11	THE CATHOLIC UNIV OF AMERICA	J SWANK	GSFC	R D ROBINSON	NAG 5 8691	165
11	THE CATHOLIC UNIV OF AMERICA	K G CARPENTER	GSFC	R D ROBINSON	NAG 5 6239	164
11	THE CATHOLIC UNIV OF AMERICA	L E ORWIG	GSFC	C WERNTZ	NCC 5 83	166
11	THE CATHOLIC UNIV OF AMERICA	L ORWIG	GSFC	R D STARR	NCC 5 380	166
11	THE CATHOLIC UNIV OF AMERICA	M ACUNA	GSFC	N GOPALSWAMY	NCC 5 376	166
11	THE CATHOLIC UNIV OF AMERICA	M J MUMMA	GSFC	M DISANTI	NCC 5 130	166
11	THE CATHOLIC UNIV OF AMERICA	M J MUMMA	GSFC	N RUSSO	NCC 5 210	166
11	THE CATHOLIC UNIV OF AMERICA	M J MUMMA	GSFC	V KRASNOPOLSKY	NCC 5 211	166
11	THE CATHOLIC UNIV OF AMERICA	R BEEBE	GSFC	D D SMITH	NAG 5 7882	164
11	THE CATHOLIC UNIV OF AMERICA	R BEEBE	GSFC	D J BOGAN	NAG 5 8312	165
11	THE CATHOLIC UNIV OF AMERICA	R BEEBE	GSFC	N RUSSO	NAG 5 7753	164
11	THE CATHOLIC UNIV OF AMERICA	R OLIVERSEN	GSFC	F C BRUHWEILER	NAG 5 2284	163
11	THE CATHOLIC UNIV OF AMERICA	R POLIDAN	GSFC	M SMITH	NAG 5 6733	164

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	THE CATHOLIC UNIV OF AMERICA	R R FISCHER	GSFC	S GIBSON	NAG 5 7413	164
11	THE CATHOLIC UNIV OF AMERICA	R R FISHER	GSFC	M GUHATHAKURTA	NAG 5 2881	163
11	THE CATHOLIC UNIV OF AMERICA	R R FISHER	GSFC	M GUHATHAKURTA	NAG 5 7412	164
11	THE CATHOLIC UNIV OF AMERICA	T GULL	GSFC	A BOGGESS	NAG 5 3378	163
11	THE CATHOLIC UNIV OF AMERICA	T MORGAN	GSFC	D A DISANTI	NAG 5 7905	165
11	THE CATHOLIC UNIV OF AMERICA	T MORGAN	GSFC	V A KRASNOPOLSKY	NAG 5 7078	164
11	THE CATHOLIC UNIV OF AMERICA	W HUEBNER	GSFC	D DISANTI	NAG 5 4362	163
11	THE CATHOLIC UNIV OF AMERICA	W J WAGNER	GSFC	D GOPALSWAMY	NAG 5 6139	164
11	THE CATHOLIC UNIV OF AMERICA	W WAGNER	GSFC	N GOPALSWAMY	NAG 5 7238	164
11	THE UNIV OF CENTRAL FLORIDA	J BOYCE	HQ	N G BARLOW	NAG 5 8265	176
11	TOWSON STATE UNIV	D J HOLLENBACH	ARC	M G WOLFIRE	NCC 2 1041	260
11	TRINITY COLLEGE	G MUCKLOW	GSFC	D WEIR	NAG 5 8048	151
11	UNIV HOUSTON-HOUSTON	D NAVA	GSFC	D M REID	NAG 5 4765	484
11	UNIV HOUSTON-HOUSTON	M MEYER	GSFC	D FOX	NAG 5 8140	484
11	UNIV OF MINN	D EVANS	GSFC	C CATTELL	NGT 5 30109	330
11	UNIV OF MINN	D EVANS	GSFC	D L LYSAK	NAG 5 8082	329
11	UNIV OF MINN	D EVANS	GSFC	D LIN	NAG 5 8205	329
11	UNIV OF MINN	D NAVA	GSFC	D O PEPIN	NAG 5 4709	327
11	UNIV OF MINN	D WEST	GSFC	D GARNETT	NAG 5 6416	328
11	UNIV OF MINN	D WEST	GSFC	G S ALDERING	NAG 5 2980	327
11	UNIV OF MINN	D WEST	GSFC	R GEHRZ	NAG 5 3395	327
11	UNIV OF MINN	G A SOFFEN	GSFC	L RUDNICK	NGT 5 8	330
11	UNIV OF MINN	J BERGSTRALH	GSFC	D D GEHRZ	NAG 5 4705	327
11	UNIV OF MINN	J BOYCE	HQ	R O PEPIN	NAG 5 7094	328
11	UNIV OF MINN	J GRANT	GSFC	D L KOHLSTEDT	NAG 5 8016	329
11	UNIV OF MINN	M H ACUNA	GSFC	N LIN	NAG 5 7462	328
11	UNIV OF MINN	M J KURYLO	GSFC	R W CARR	NAG 5 3980	327
11	UNIV OF MINN	M M MELLOTT	HQ	R L LYSAK	NAGW 2653	329
11	UNIV OF MINN	T MORGAN	GSFC	D J JONES	NAG 5 7906	328
11	UNIV OF WISCONSIN-EAU CLAIRE	J NORRIS	GSFC	L FORD	NAG 5 6744	546
11	UNIV OF ALABAMA - BIRMINGHAM	B CAMPBELL	GSFC	T J WDOWIAK	NAG 5 7079	7
11	UNIV OF ALABAMA - BIRMINGHAM	H HASAN	GSFC	T WDOWIAK	NAG 5 6815	7
11	UNIV OF ALABAMA - BIRMINGHAM	J BOYCE	GSFC	D WDOWIAK	NAG 5 4853	6
11	UNIV OF ALABAMA - BIRMINGHAM	J BOYCE	HQ	T J WDOWIAK	NAG 5 6973	7
11	UNIV OF ALABAMA - BIRMINGHAM	M MEYER	GSFC	T WDOWIAK	NAG 5 8819	7
11	UNIV OF ALABAMA - HUNTSVILLE	D EVANS	GSFC	D SHELDON	NAG 5 7655	11
11	UNIV OF ALABAMA - HUNTSVILLE	D K WEST	GSFC	J J BRAINERD	NAG 5 8353	13
11	UNIV OF ALABAMA - HUNTSVILLE	D K WEST	GSFC	J VAN PARADIJS	NAG 5 6021	10
11	UNIV OF ALABAMA - HUNTSVILLE	D K WEST	GSFC	M S BRIGGS	NAG 5 7972	12
11	UNIV OF ALABAMA - HUNTSVILLE	D K WEST	GSFC	R LIEU	NAG 5 7005	10
11	UNIV OF ALABAMA - HUNTSVILLE	D K WEST	GSFC	R LIEU	NAG 5 8210	13
11	UNIV OF ALABAMA - HUNTSVILLE	D K WEST	GSFC	S ZHANG	NAG 5 7927	12
11	UNIV OF ALABAMA - HUNTSVILLE	D K WEST	GSFC	S ZHANG	NAG 5 8523	14
11	UNIV OF ALABAMA - HUNTSVILLE	D K WEST	GSFC	W C KEEL	NAG 5 3402	8
11	UNIV OF ALABAMA - HUNTSVILLE	D SCHAEFER	MSFC	A G OSTROGORSKY	NCC 8 97	16
11	UNIV OF ALABAMA - HUNTSVILLE	D WEST	GSFC	R LIEU	NAG 5 3164	8
11	UNIV OF ALABAMA - HUNTSVILLE	D WEST	GSFC	Z E MUSIELAK	NAG 5 3027	8
11	UNIV OF ALABAMA - HUNTSVILLE	E J REICHMANN	MSFC	Z E MUSIELAK	NAG 8 1084	14
11	UNIV OF ALABAMA - HUNTSVILLE	H RAMPRIYAN	GSFC	J VANPARADIJS	NAG 5 4878	10
11	UNIV OF ALABAMA - HUNTSVILLE	J A LING	GSFC	P A MILLER	NAG 5 4608	9
11	UNIV OF ALABAMA - HUNTSVILLE	J BREDEKAMP	GSFC	G A GERMANY	NAG 5 8303	13
11	UNIV OF ALABAMA - HUNTSVILLE	J F ORMES	GSFC	Y TAKAHASHI	NAG 5 3905	9
11	UNIV OF ALABAMA - HUNTSVILLE	J H BREDEKAMP	GSFC	M SHEA	NAG 5 8009	12
11	UNIV OF ALABAMA - HUNTSVILLE	J H BREDEKAMP	GSFC	M SHEA	NAG 5 8011	12
11	UNIV OF ALABAMA - HUNTSVILLE	J NORRIS	GSFC	J BRAINERD	NAG 5 6746	10
11	UNIV OF ALABAMA - HUNTSVILLE	J NORRIS	GSFC	R KIPPEN	NAG 5 6747	10
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	G N PENDLETON	NAG 5 6930	10
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	G N PENDLETON	NAG 5 7823	12
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	J V PARADIJS	NAG 5 3674	9
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	J VAN PARADIJS	NAG 5 7785	11
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	J VAN PARADIJS	NAG 5 7786	12
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	J VAN PARADIJS	NAG 5 7808	12
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	M S BRIGGS	NAG 5 6868	10
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	M S BRIGGS	NAG 5 7845	12
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	R KIPPEN	NAG 5 7809	12
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	R MALLOZZI	NAG 5 3675	9

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	R PREECE	NAG 5 3828	9
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	R PREECE	NAG 5 7811	12
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	R PREECE	NAG 5 7812	12
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	S N ZHANG	NAG 5 7824	12
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	S ZHANG	NAG 5 8440	14
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	W PACIEBAB	NAG 5 3805	9
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	W PACIESAS	NAG 5 8606	14
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	W PACIESAS	NAG 5 8620	14
11	UNIV OF ALABAMA - HUNTSVILLE	J P NORRIS	GSFC	W S PACIESAS	NAG 5 6745	10
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	C ROBINSON	NAG 5 8234	13
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	J PARADIJS	NAG 5 7382	11
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	J V PARADIJS	NAG 5 3672	9
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	J VAN PARADIJS	NAG 5 3269	8
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	J VAN PARADIJS	NAG 5 4111	9
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	J VAN PARADIJS	NAG 5 4419	9
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	J VAN PARADIJS	NAG 5 7414	11
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	J VANPARADIJS	NAG 5 4482	9
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	J VANPARADIJS	NAG 5 7415	11
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	J VANPARADIJS	NAG 5 7494	11
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	L VANPARADIJS	NAG 5 7105	11
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	M T STOLLBERG	NAG 5 7482	11
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	S N ZHANG	NAG 5 7665	11
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	S N ZHANG	NAG 5 8245	13
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	S N ZHANG	NAG 5 8690	14
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	S R ZHANG	NAG 5 8220	13
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	S W DIETERS	NAG 5 7483	11
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	S ZHANG	NAG 5 7667	11
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	S ZHANG	NAG 5 8101	13
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	S ZHANG	NAG 5 8102	13
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	S ZHANG	NAG 5 8125	13
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	S ZHANG	NAG 5 8219	13
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	S ZHANG	NAG 5 8233	13
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	S ZHANG	NAG 5 8432	13
11	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	W PACIESAS	NAG 5 7106	11
11	UNIV OF ALABAMA - HUNTSVILLE	M D JOSEPH	GSFC	J PENDLETON	NAG 5 98036	16
11	UNIV OF ALABAMA - HUNTSVILLE	M MELLOTT	GSFC	D G RICHARDS	NAG 5 8200	13
11	UNIV OF ALABAMA - HUNTSVILLE	M MELLOTT	GSFC	G A GERMANY	NAG 5 6986	10
11	UNIV OF ALABAMA - HUNTSVILLE	N WHITE	GSFC	R LIEU	NAG 5 3554	8
11	UNIV OF ALABAMA - HUNTSVILLE	N WHITE	GSFC	S ZHANG	NAG 5 7944	12
11	UNIV OF ALABAMA - HUNTSVILLE	N WHITE	GSFC	S ZHANG	NAG 5 8433	13
11	UNIV OF ALABAMA - HUNTSVILLE	R HOFFMAN	GSFC	H COMFORT	NAG 5 8034	13
11	UNIV OF ALABAMA - HUNTSVILLE	R J OLIVERSEN	GSFC	R LIEU	NAG 5 3705	9
11	UNIV OF ALABAMA - HUNTSVILLE	W J WAGNER	GSFC	J J MILLER	NAG 5 8480	14
11	UNIV OF ALABAMA - UNIV	A NURRIDIN	HQ	D HICKEY	NGT 5 50094	20
11	UNIV OF ALABAMA - UNIV	D K WEST	GSFC	J W SULENTIC	NAG 5 8407	19
11	UNIV OF ALABAMA - UNIV	D WEST	GSFC	P B ESKRIDGE	NAG 5 2990	18
11	UNIV OF ALABAMA - UNIV	D WEST	GSFC	W C KEEL	NAG 5 3336	18
11	UNIV OF ALABAMA - UNIV	J BOYCE	GSFC	R H TIPPING	NAG 5 8269	19
11	UNIV OF ALABAMA - UNIV	J P NORRIS	GSFC	R D PREECE	NAG 5 7035	19
11	UNIV OF ALABAMA - UNIV	J R SAUS	GRC	R E WHITE III	NAG 5 2574	18
11	UNIV OF ALABAMA - UNIV	J SWANK	GSFC	J PARADIJS	NAG 5 7380	19
11	UNIV OF ALABAMA - UNIV	J SWANK	GSFC	J PARADILS	NAG 5 7381	19
11	UNIV OF ALABAMA - UNIV	N WHITE	GSFC	R E WHITE	NAG 5 6934	19
11	UNIV OF ALABAMA - UNIV	R J OLIVERSEN	GSFC	R LIEU	NAG 5 7220	19
11	UNIV OF ALASKA - FAIRBANKS	G H TROFFORD	GSFC	J MILLER	NCA 5 112	23
11	UNIV OF ALASKA - FAIRBANKS	J BOYCE	HQ	V SHARPTON	NAG 5 8722	22
11	UNIV OF ALASKA - FAIRBANKS	J GRANT	GSFC	D L SHAPRTON	NAG 5 8112	22
11	UNIV OF ALASKA - FAIRBANKS	L ZANETTI	GSFC	W A BRISTOW	NAG 5 7799	22
11	UNIV OF ALASKA - FAIRBANKS	M MELLOTT	GSFC	G V KHAZANOV	NAG 5 6976	22
11	UNIV OF ARIZONA	A NURRIDIN	HQ	R H BROWN	NGT 5 50190	41
11	UNIV OF ARIZONA	D BOHLIN	GSFC	F HERBERT	NAG 5 6362	34
11	UNIV OF ARIZONA	D C LING	GSFC	J GIACALONE	NAG 5 7793	36
11	UNIV OF ARIZONA	D C LING	GSFC	K HSIEH	NAG 5 7966	37
11	UNIV OF ARIZONA	D EVANS	GSFC	W A SPRIGG	NAG 5 7780	36
11	UNIV OF ARIZONA	D K WEST	GSFC	A S BURROWS	NAG 5 7073	35
11	UNIV OF ARIZONA	D K WEST	GSFC	D GARNETT	NAG 5 7734	36

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF ARIZONA	D K WEST	GSFC	F MELIA	NAG 5 8239	37
11	UNIV OF ARIZONA	D K WEST	GSFC	J B HOLBERG	NAG 5 3472	30
11	UNIV OF ARIZONA	D K WEST	GSFC	J BECHTOLD	NAG 5 3691	31
11	UNIV OF ARIZONA	D K WEST	GSFC	J G LAROS	NAG 5 3400	30
11	UNIV OF ARIZONA	D K WEST	GSFC	J HOLBERG	NAG 5 7004	35
11	UNIV OF ARIZONA	D K WEST	GSFC	M STEINMETZ	NAG 5 7151	35
11	UNIV OF ARIZONA	D K WEST	GSFC	R C KENNICUTT	NAG 5 8426	38
11	UNIV OF ARIZONA	D NAVA	GSFC	D D SWINDLE	NAG 5 4767	33
11	UNIV OF ARIZONA	D NAVA	GSFC	D GANGULY	NAG 5 4716	33
11	UNIV OF ARIZONA	D NAVA	GSFC	D V BOYNTON	NAG 5 4944	33
11	UNIV OF ARIZONA	D NAVA	GSFC	P RIEKE	NAG 5 4667	33
11	UNIV OF ARIZONA	D WEST	GSFC	A S BURROWS	NAG 5 2817	30
11	UNIV OF ARIZONA	D WEST	GSFC	E W OLSZEWSKI	NAG 5 2642	29
11	UNIV OF ARIZONA	D WEST	GSFC	F MELLA	NAG 5 3075	30
11	UNIV OF ARIZONA	D WEST	GSFC	J B HOLBERG	NAG 5 2738	30
11	UNIV OF ARIZONA	D WEST	GSFC	M RIEKE	NAG 5 3359	30
11	UNIV OF ARIZONA	D WEST	GSFC	S G STARRFIELD	NAG 5 3068	30
11	UNIV OF ARIZONA	D WEST	GSFC	W D ARNETT	NAG 5 2798	30
11	UNIV OF ARIZONA	E O RUITBERG	GSFC	D I THOMPSON	NAG 5 3042	30
11	UNIV OF ARIZONA	E SMITH	GSFC	M MEYER	NAG 5 7763	36
11	UNIV OF ARIZONA	H HASAN	GSFC	D P LESSER	NAG 5 4042	31
11	UNIV OF ARIZONA	H THRONSON	GSFC	D F BERNATH	NAG 5 4142	32
11	UNIV OF ARIZONA	H THRONSON	GSFC	D M ZIURY	NAG 5 3785	31
11	UNIV OF ARIZONA	H THRONSON	GSFC	P A STRITTMATTER	NAG 5 8260	38
11	UNIV OF ARIZONA	J BERGSTRALH	GSFC	D A LEOFSKY	NAG 5 4213	32
11	UNIV OF ARIZONA	J BERGSTRALH	GSFC	D B HUBBARD	NAG 5 4214	32
11	UNIV OF ARIZONA	J BERGSTRALH	GSFC	D FINK	NAG 5 3937	31
11	UNIV OF ARIZONA	J BERGSTRALH	GSFC	S M LARSON	NAG 5 4049	32
11	UNIV OF ARIZONA	J BOYCE	GSFC	D BENZ	NAG 5 4380	32
11	UNIV OF ARIZONA	J BOYCE	GSFC	D JULL	NAG 5 4832	33
11	UNIV OF ARIZONA	J BOYCE	GSFC	D L HOOD	NAG 5 4845	33
11	UNIV OF ARIZONA	J BOYCE	GSFC	D S MCMILLAN	NAG 5 4598	33
11	UNIV OF ARIZONA	J BOYCE	GSFC	L L HOOD	NAG 5 6980	35
11	UNIV OF ARIZONA	J BOYCE	GSFC	S W BOUGHER	NAG 5 8152	37
11	UNIV OF ARIZONA	J BOYCE	HQ	A BURROWS	NAG 5 7499	36
11	UNIV OF ARIZONA	J BOYCE	HQ	J GANGULY	NAG 5 7364	36
11	UNIV OF ARIZONA	J BOYCE	HQ	J LUNINE	NAG 5 7211	35
11	UNIV OF ARIZONA	J BOYCE	HQ	L KESZTHELYI	NAG 5 8308	38
11	UNIV OF ARIZONA	J BOYCE	HQ	L L HOOD	NAG 5 8185	37
11	UNIV OF ARIZONA	J BOYCE	HQ	N J WOOLF	NAG 5 7200	35
11	UNIV OF ARIZONA	J BOYCE	HQ	P H SMITH	NAG 5 8349	38
11	UNIV OF ARIZONA	J BOYCE	HQ	T D SWINDLE	NAG 5 7215	35
11	UNIV OF ARIZONA	J I TROMBKA	GSFC	W V BOYNTON	NAG 5 2367	29
11	UNIV OF ARIZONA	J JELETIC	GSFC	R THOMPSON	NAG 5 7923	37
11	UNIV OF ARIZONA	J LING	GSFC	B R SANDEL	NAG 5 7089	35
11	UNIV OF ARIZONA	J LING	GSFC	J JOKIPPI	NAG 5 6620	34
11	UNIV OF ARIZONA	J SWANK	GSFC	G D SCHMIDT	NAG 5 4404	33
11	UNIV OF ARIZONA	J TUELLER	HQ	H BARBER	NAG 5 4107	32
11	UNIV OF ARIZONA	JBERGSTRALH	GSFC	M M LARSON	NAG 5 4350	32
11	UNIV OF ARIZONA	L QUAIFE	ARC	E T YOUNG	NAG 2 1090	29
11	UNIV OF ARIZONA	L R PURVES	GSFC	J BECHTOLD	NAG 5 98169	40
11	UNIV OF ARIZONA	M A FORMAN	GSFC	D M WEBB	NAG 5 4835	33
11	UNIV OF ARIZONA	M A FORMAN	GSFC	M KOTA	NAG 5 4834	33
11	UNIV OF ARIZONA	M MELLOTT	GSFC	J A GARDNER	NAG 5 6983	35
11	UNIV OF ARIZONA	M MEYER	GSFC	H MELOSH	NAG 5 7509	36
11	UNIV OF ARIZONA	N WHITE	GSFC	J BECHTOLD	NAG 5 2962	30
11	UNIV OF ARIZONA	P ROGERS	GSFC	A S MCEWEN	NAG 5 7072	35
11	UNIV OF ARIZONA	R BEEBE	GSFC	D E GEISSLER	NAG 5 8340	38
11	UNIV OF ARIZONA	R BEEBE	GSFC	D GREENBERG	NAG 5 7957	37
11	UNIV OF ARIZONA	R BEEBE	GSFC	D HERBERT	NAG 5 8051	37
11	UNIV OF ARIZONA	R BEEBE	GSFC	D M HUNTEN	NAG 5 6945	35
11	UNIV OF ARIZONA	R BEEBE	GSFC	D S MCEWEN	NAG 5 7865	37
11	UNIV OF ARIZONA	R BEEBE	GSFC	J S LEWIS	NAG 5 6944	35
11	UNIV OF ARIZONA	R BEEBE	GSFC	J STANSBERRY	NAG 5 8509	38
11	UNIV OF ARIZONA	R BEEBE	GSFC	M T BRITT	NAG 5 4160	32
11	UNIV OF ARIZONA	R J OLIVERSEN	GSFC	J B HOLBERG	NAG 5 6418	34

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF ARIZONA	R OLIVERSEN	GSFC	J W LIEBERT	NAG 5 2901	30
11	UNIV OF ARIZONA	R PETRE	GSFC	J BECHTOLD	NAG 5 4774	33
11	UNIV OF ARIZONA	T MORGAN	GSFC	D CAMPINS	NAG 5 8006	37
11	UNIV OF ARIZONA	T MORGAN	GSFC	D GEHRELS	NAG 5 3938	31
11	UNIV OF ARIZONA	T MORGAN	GSFC	D S MCMILLAN	NAG 5 7854	37
11	UNIV OF ARIZONA	T MORGAN	GSFC	M V SYKES	NAG 5 7758	36
11	UNIV OF ARIZONA	T MORGAN	GSFC	R H BROWN	NAG 5 7083	35
11	UNIV OF ARIZONA	T MORGAN	GSFC	R S MCMILLAN	NAG 5 7533	36
11	UNIV OF ARIZONA	T MORGAN	GSFC	S LARSON	NAG 5 7523	36
11	UNIV OF ARIZONA	T MORGAN	GSFC	S LARSON	NAG 5 8015	37
11	UNIV OF ARIZONA	W HUEBNER	GSFC	D H BROWN	NAG 5 4560	33
11	UNIV OF ARIZONA	W HUEBNER	GSFC	D L SPRAGUE	NAG 5 4984	34
11	UNIV OF ARIZONA	W HUEBNER	GSFC	D M HUNTEN	NAG 5 4166	32
11	UNIV OF ARKANSAS - LITTLE ROCK	D DETROYE	HQ	M HUDSON	NCC 5 260	42
11	UNIV OF ARK MAIN CAMP - FAYETTEVILLE	D NAVA	GSFC	D H BENOIT	NAG 5 4317	43
11	UNIV OF CALIFORNIA - BERKELEY	A F HASLER	GSFC	I HAWKINS	NAG 5 7356	77
11	UNIV OF CALIFORNIA - BERKELEY	A SMITH	GSFC	D HUNTEN	NAS 5 30180	80
11	UNIV OF CALIFORNIA - BERKELEY	C P MCKAY	ARC	I DEPATER	NGT 2 52258	82
11	UNIV OF CALIFORNIA - BERKELEY	D EVANS	GSFC	R P LIN	NGT 5 30110	83
11	UNIV OF CALIFORNIA - BERKELEY	D FAIRFIELD	GSFC	F S MOZER	NAG 5 2718	72
11	UNIV OF CALIFORNIA - BERKELEY	D GOORVITCH	ARC	C E HEILES	NCC 2 142	80
11	UNIV OF CALIFORNIA - BERKELEY	D GOORVITCH	ARC	M COHEN	NCC 2 1125	81
11	UNIV OF CALIFORNIA - BERKELEY	D HOLLENBACH	ARC	C F MCKEE	NCC 2 5195	81
11	UNIV OF CALIFORNIA - BERKELEY	D HOLLENBACH	ARC	I DE PATER	NCC 2 5192	81
11	UNIV OF CALIFORNIA - BERKELEY	D J HOLLENBACH	ARC	F H SHU	NCC 2 548	80
11	UNIV OF CALIFORNIA - BERKELEY	D J HOLLENBACH	ARC	F H SHU	NCC 2 1080	81
11	UNIV OF CALIFORNIA - BERKELEY	D J HOLLENBCH	ARC	C F MCKEE	NCC 2 5289	81
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	A V FILIPPENKO	NAG 5 3556	73
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	C M JOHNS-KRULL	NAG 5 8209	79
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	D CHRISTIAN	NAG 5 3470	73
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	D DUPUIS	NAG 5 3399	73
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	D M SMITH	NAG 5 7265	77
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	G F SMOOT	NAG 5 6552	76
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	G S BASRI	NAG 5 3471	73
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	K C HURLEY	NAG 5 3500	73
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	K C HURLEY	NAG 5 7766	78
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	L BILDSTEN	NAG 5 8419	79
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	M COHEN	NAG 5 7018	77
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	M COHEN	NAG 5 7936	78
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	M DAVIS	NAG 5 7833	78
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	M I DAVIS	NAG 5 3499	73
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	R I KLIEN	NAG 5 3809	73
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	S VENNES	NAG 5 6551	76
11	UNIV OF CALIFORNIA - BERKELEY	D NAVA	GSFC	D J WELCH	NAG 5 4226	74
11	UNIV OF CALIFORNIA - BERKELEY	D T POLAND	GSFC	D W SIEGMUND	NAG 5 3126	72
11	UNIV OF CALIFORNIA - BERKELEY	D WEST	GSFC	B FLYNN	NAG 5 6748	76
11	UNIV OF CALIFORNIA - BERKELEY	D WEST	GSFC	C CHRISTIAN	NAS 5 32698	80
11	UNIV OF CALIFORNIA - BERKELEY	D WEST	GSFC	H W SIEGMUAL	NAS 5 32795	80
11	UNIV OF CALIFORNIA - BERKELEY	D WEST	GSFC	I SILK	NAG 5 3146	72
11	UNIV OF CALIFORNIA - BERKELEY	D WEST	GSFC	J ARONS	NAG 5 3073	72
11	UNIV OF CALIFORNIA - BERKELEY	D WEST	GSFC	J SILK	NAG 5 1360	72
11	UNIV OF CALIFORNIA - BERKELEY	D WEST	GSFC	M COHEN	NAG 5 4884	74
11	UNIV OF CALIFORNIA - BERKELEY	D WEST	GSFC	S W STAHLER	NAG 5 3081	72
11	UNIV OF CALIFORNIA - BERKELEY	D WEST	GSFC	T BROADHURST	NAG 5 3280	73
11	UNIV OF CALIFORNIA - BERKELEY	F SNOW	GSFC	R P LIN	NAS 5 98033	80
11	UNIV OF CALIFORNIA - BERKELEY	G CLAYTON	HQ	O SIEGMUND	NAGW 2029	80
11	UNIV OF CALIFORNIA - BERKELEY	G MUCKLOW	GSFC	O H SIEGMUND	NAG 5 8667	79
11	UNIV OF CALIFORNIA - BERKELEY	G S KUTTER	HQ	D S FINLEY	NAGW 2478	80
11	UNIV OF CALIFORNIA - BERKELEY	G STRINGFELLOW	GSFC	D J SAYKALLY	NAG 5 4521	74
11	UNIV OF CALIFORNIA - BERKELEY	H C BRINTON	HQ	H SPINRAD	NAGW 2883	80
11	UNIV OF CALIFORNIA - BERKELEY	H HASAN	GSFC	D EDELSTEIN	NAG 5 3951	74
11	UNIV OF CALIFORNIA - BERKELEY	H HASAN	GSFC	D EDELSTEIN	NAG 5 7755	78
11	UNIV OF CALIFORNIA - BERKELEY	H HASAN	GSFC	D H SIEGMUND	NAG 5 3913	73
11	UNIV OF CALIFORNIA - BERKELEY	H HASAN	GSFC	D H SIEGMUND	NAG 5 4090	74
11	UNIV OF CALIFORNIA - BERKELEY	H HASAN	GSFC	D V HURWITZ	NAG 5 4194	74
11	UNIV OF CALIFORNIA - BERKELEY	H SMITH	GSFC	J SILK	NAG 5 8262	79

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF CALIFORNIA - BERKELEY	H THRONSON	GSFC	D L RICHARD	NAG 5 4454	74
11	UNIV OF CALIFORNIA - BERKELEY	J BERGSTRALH	GSFC	D SPINRAD	NAG 5 6103	75
11	UNIV OF CALIFORNIA - BERKELEY	J BOYCE	GSFC	C M JOHNS-KRULL	NAG 5 8098	78
11	UNIV OF CALIFORNIA - BERKELEY	J BOYCE	GSFC	D LUHMANN	NAG 5 4675	74
11	UNIV OF CALIFORNIA - BERKELEY	J BOYCE	HQ	B Y WELSH	NAG 5 7311	77
11	UNIV OF CALIFORNIA - BERKELEY	J BREDEKAMP	GSFC	G H FISHER	NAG 5 7188	77
11	UNIV OF CALIFORNIA - BERKELEY	J LING	GSFC	J G LUHMANN	NAG 5 7951	78
11	UNIV OF CALIFORNIA - BERKELEY	J LING	GSFC	S D BALE	NAG 5 7961	78
11	UNIV OF CALIFORNIA - BERKELEY	J P NORRIS	GSFC	K C HURLEY	NAG 5 3811	73
11	UNIV OF CALIFORNIA - BERKELEY	J P NORRIS	GSFC	K C HURLEY	NAG 5 7274	77
11	UNIV OF CALIFORNIA - BERKELEY	J P NORRIS	GSFC	K C HURLEY	NAG 5 7810	78
11	UNIV OF CALIFORNIA - BERKELEY	J P NORRIS	GSFC	K C HURLEY	NAG 5 7890	78
11	UNIV OF CALIFORNIA - BERKELEY	J P NORRIS	GSFC	R P LIN	NAG 5 3520	73
11	UNIV OF CALIFORNIA - BERKELEY	J P NORRIS	GSFC	S PERLMUTTER	NAG 5 7025	77
11	UNIV OF CALIFORNIA - BERKELEY	J SWANK	GSFC	A V FILIPPENKO	NAG 5 4865	74
11	UNIV OF CALIFORNIA - BERKELEY	J SWANK	GSFC	D M SMITH	NAG 5 7522	78
11	UNIV OF CALIFORNIA - BERKELEY	J SWANK	GSFC	J ARONS	NAG 5 4790	74
11	UNIV OF CALIFORNIA - BERKELEY	J SWANK	GSFC	K C HURLEY	NAG 5 7343	77
11	UNIV OF CALIFORNIA - BERKELEY	J SWANK	GSFC	K C HURLEY	NAG 5 8206	79
11	UNIV OF CALIFORNIA - BERKELEY	J SWANK	GSFC	K HURLEY	NAG 5 4882	74
11	UNIV OF CALIFORNIA - BERKELEY	J SWANK	GSFC	L BILDSTEN	NAG 5 8435	79
11	UNIV OF CALIFORNIA - BERKELEY	L R PURVES	GSFC	J R GRAHAM	NAG 5 98171	80
11	UNIV OF CALIFORNIA - BERKELEY	L SMITH	GSFC	C F MCKEE	NGT 5 50253	84
11	UNIV OF CALIFORNIA - BERKELEY	M MELLOTT	GSFC	R E ERGUN	NAG 5 6985	77
11	UNIV OF CALIFORNIA - BERKELEY	N WHITE	GSFC	L BILDSTEN	NAG 5 6919	76
11	UNIV OF CALIFORNIA - BERKELEY	R A BEEBE	GSFC	K C HURLEY	NAG 5 7063	77
11	UNIV OF CALIFORNIA - BERKELEY	R BEEBE	GSFC	J LUHMANN	NAG 5 6895	76
11	UNIV OF CALIFORNIA - BERKELEY	R J OLIVERSEN	GSFC	N CRAIG	NAG 5 3813	73
11	UNIV OF CALIFORNIA - BERKELEY	R J OLIVERSEN	GSFC	P CHAYER	NAG 5 6684	76
11	UNIV OF CALIFORNIA - BERKELEY	R J OLIVERSEN	GSFC	R MALINA	NCC 5 138	81
11	UNIV OF CALIFORNIA - BERKELEY	R J OLIVERSEN	GSFC	S BOWYER	NAG 5 7231	77
11	UNIV OF CALIFORNIA - BERKELEY	R J OLIVERSEN	GSFC	S VENNES	NAG 5 6707	76
11	UNIV OF CALIFORNIA - BERKELEY	R OLIVERSEN	GSFC	B FLYNN	NAG 5 6706	76
11	UNIV OF CALIFORNIA - BERKELEY	R OLIVERSEN	GSFC	J DUPUIS	NAG 5 6705	76
11	UNIV OF CALIFORNIA - BERKELEY	R OLIVERSEN	GSFC	T BERGHOFER	NAG 5 6742	76
11	UNIV OF CALIFORNIA - BERKELEY	R PETRE	GSFC	J R GRAHAM	NAG 5 4758	74
11	UNIV OF CALIFORNIA - BERKELEY	R POLIDAN	GSFC	B FLYNN	NAG 5 7181	77
11	UNIV OF CALIFORNIA - BERKELEY	R V STACHNIK	HQ	M L LAMPTON	NAGW 3823	80
11	UNIV OF CALIFORNIA - BERKELEY	T MORGAN	GSFC	I DE PATER	NAG 5 6890	76
11	UNIV OF CALIFORNIA - BERKELEY	W HUEBNER	GSFC	D DE PATER	NAG 5 4202	74
11	UNIV OF CALIFORNIA - BERKELEY	W WAGNER	GSFC	D FISHER	NAG 5 6128	75
11	UNIV OF CALIFORNIA - BERKELEY	W WAGNER	GSFC	D H FISHER	NAG 5 4181	74
11	UNIV OF CALIFORNIA - BERKELEY	W WAGNER	GSFC	D LIN	NAG 5 6106	75
11	UNIV OF CALIFORNIA - BERKELEY	W WAGNER	GSFC	G H FISHER	NAG 5 8468	79
11	UNIV OF CALIFORNIA - DAVIS	D K WEST	GSFC	R H BECKER	NAG 5 8391	85
11	UNIV OF CALIFORNIA - DAVIS	D K WEST	GSFC	S LAURENT-MUEHLEI	NAG 5 7046	85
11	UNIV OF CALIFORNIA - DAVIS	D K WEST	GSFC	S STANFORD	NAG 5 8430	85
11	UNIV OF CALIFORNIA - DAVIS	P CRANE	GSFC	J GUNION	NAG 5 8823	86
11	UNIV OF CALIFORNIA - DAVIS	R BEEBE	GSFC	W JACKSON	NAG 5 8258	85
11	UNIV OF CALIFORNIA - IRVINE	J M BOYCE	GSFC	D P RUDEN	NAG 5 4536	90
11	UNIV OF CALIFORNIA - IRVINE	M J KURYLO	GSFC	D R BLAKE	NAG 5 3767	89
11	UNIV OF CALIFORNIA - LOS ANGELES	A NURRIDIN	HQ	B ZUCKERMAN	NGT 5 50187	101
11	UNIV OF CALIFORNIA - LOS ANGELES	C BENNET	GSFC	E L WRIGHT	NAG 5 8540	99
11	UNIV OF CALIFORNIA - LOS ANGELES	C L BENNETT	GSFC	E S WRIGHT	NAG 5 3252	93
11	UNIV OF CALIFORNIA - LOS ANGELES	D EVANS	GSFC	D SCHRIVER	NAG 5 8085	98
11	UNIV OF CALIFORNIA - LOS ANGELES	D EVANS	GSFC	R J STRANGWAY	NAG 5 6965	97
11	UNIV OF CALIFORNIA - LOS ANGELES	D K WEST	GSFC	M A JURA	NAG 5 7924	97
11	UNIV OF CALIFORNIA - LOS ANGELES	D K WEST	GSFC	R A EDELSON	NAG 5 7899	97
11	UNIV OF CALIFORNIA - LOS ANGELES	D NAVA	GSFC	D A LESHIN	NAG 5 4305	94
11	UNIV OF CALIFORNIA - LOS ANGELES	D NAVA	GSFC	D E RUBIN	NAG 5 4766	95
11	UNIV OF CALIFORNIA - LOS ANGELES	D NAVA	GSFC	D F KERRIDGE	NAG 5 4299	94
11	UNIV OF CALIFORNIA - LOS ANGELES	D NAVA	GSFC	D GHEZ	NAG 5 4475	95
11	UNIV OF CALIFORNIA - LOS ANGELES	D WEST	GSFC	E E BECKLIN	NAG 5 3309	93
11	UNIV OF CALIFORNIA - LOS ANGELES	D WEST	GSFC	F V CORONITI	NAG 5 3089	93
11	UNIV OF CALIFORNIA - LOS ANGELES	D WEST	GSFC	L FERRARESE	NAG 5 8693	99
11	UNIV OF CALIFORNIA - LOS ANGELES	E BARKER	HQ	G SCHUBERT	NAGW 4840	100

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF CALIFORNIA - LOS ANGELES	E SMITH	GSFC	M RICH	NAG 5 8288	98
11	UNIV OF CALIFORNIA - LOS ANGELES	H THRONSON	GSFC	D L WANG	NAG 5 6307	96
11	UNIV OF CALIFORNIA - LOS ANGELES	J BERGSTRAHL	HQ	G SCHUBERT	NAGW 1874	99
11	UNIV OF CALIFORNIA - LOS ANGELES	J BOYCE	GSFC	D M ZUCKERMAN	NAG 5 4688	95
11	UNIV OF CALIFORNIA - LOS ANGELES	J BOYCE	GSFC	D T RUSSELL	NAG 5 4612	95
11	UNIV OF CALIFORNIA - LOS ANGELES	J BOYCE	GSFC	D T WASSON	NAG 5 4568	95
11	UNIV OF CALIFORNIA - LOS ANGELES	J BOYCE	GSFC	G SCHUBERT	NAG 5 8530	99
11	UNIV OF CALIFORNIA - LOS ANGELES	J BOYCE	GSFC	L A LESHIN	NAG 5 6082	96
11	UNIV OF CALIFORNIA - LOS ANGELES	J BOYCE	HQ	A GHEZ	NAG 5 6975	97
11	UNIV OF CALIFORNIA - LOS ANGELES	J BOYCE	HQ	D JURA	NAG 5 8335	98
11	UNIV OF CALIFORNIA - LOS ANGELES	J F BOYCE	HQ	D D MCKEEGAN	NAG 5 4704	95
11	UNIV OF CALIFORNIA - LOS ANGELES	J M BOYCE	GSFC	D A PAIGE	NAG 5 4367	94
11	UNIV OF CALIFORNIA - LOS ANGELES	J MATHER	GSFC	E L WRIGHT	NAG 5 1309	93
11	UNIV OF CALIFORNIA - LOS ANGELES	J SWANK	GSFC	R EDELSON	NAG 5 7315	97
11	UNIV OF CALIFORNIA - LOS ANGELES	L J CAROFF	HQ	E E BECKLIN	NAGW 3115	99
11	UNIV OF CALIFORNIA - LOS ANGELES	L ZANETTI	GSFC	L R LYONS	NAG 5 7962	97
11	UNIV OF CALIFORNIA - LOS ANGELES	M MEYER	GSFC	D JACOBS	NAG 5 7207	97
11	UNIV OF CALIFORNIA - LOS ANGELES	M MEYER	GSFC	J SCHOPF	NAG 5 8439	98
11	UNIV OF CALIFORNIA - LOS ANGELES	P G ROGERS	HQ	A CHEZ	NAGW 4770	100
11	UNIV OF CALIFORNIA - LOS ANGELES	R BEEBE	GSFC	C T RUSSELL	NAG 5 8064	98
11	UNIV OF CALIFORNIA - LOS ANGELES	R BEEBE	GSFC	D G KIVELSON	NAG 5 7959	97
11	UNIV OF CALIFORNIA - LOS ANGELES	R BEEBE	GSFC	D K KHURANA	NAG 5 8050	98
11	UNIV OF CALIFORNIA - LOS ANGELES	R BEEBE	GSFC	D M THORNE	NAG 5 8065	98
11	UNIV OF CALIFORNIA - LOS ANGELES	R BEEBE	GSFC	D SCHUBERT	NAG 5 8066	98
11	UNIV OF CALIFORNIA - LOS ANGELES	R BEEBE	GSFC	R J WALKER	NAG 5 8055	98
11	UNIV OF CALIFORNIA - LOS ANGELES	R PETRE	GSFC	M MALKAN	NAG 5 6407	96
11	UNIV OF CALIFORNIA - LOS ANGELES	R STEWART	GSFC	L KUO-NAN	NAG 5 6036	96
11	UNIV OF CALIFORNIA - LOS ANGELES	W J WAGNER	GSFC	D K ULRICH	NAG 5 6332	96
11	UNIV OF CALIFORNIA - LOS ANGELES	W WAGNER	GSFC	J M PAP	NAG 5 8507	99
11	UNIV OF CALIFORNIA - RIVERSIDE	A B MERRITT	WFF	A D ZYCHE	NAG 5 5211	102
11	UNIV OF CALIFORNIA - RIVERSIDE	D WEST	GSFC	M A BARSONY	NAG 5 3349	101
11	UNIV OF CALIFORNIA - RIVERSIDE	J P NORRIS	GSFC	D D DIXON	NAG 5 3666	101
11	UNIV OF CALIFORNIA - RIVERSIDE	J P NORRIS	GSFC	D D DIXON	NAG 5 7205	102
11	UNIV OF CALIFORNIA - RIVERSIDE	J P NORRIS	GSFC	D D DIXON	NAG 5 7983	102
11	UNIV OF CALIFORNIA - RIVERSIDE	J P NORRIS	GSFC	D D DIXON	NAG 5 8024	102
11	UNIV OF CALIFORNIA - RIVERSIDE	J P NORRIS	GSFC	D D DIXON	NAG 5 8026	102
11	UNIV OF CALIFORNIA - RIVERSIDE	J P NORRIS	GSFC	D D NIXON	NAG 5 7275	102
11	UNIV OF CALIFORNIA - RIVERSIDE	M D JOSEPH	GSFC	A D ZYCH	NAS 5 98173	102
11	UNIV OF CALIFORNIA - SAN DIEGO	A SMITH	GSFC	E BEAVER	NAG 5 1858	103
11	UNIV OF CALIFORNIA - SAN DIEGO	D EVANS	GSFC	K QUEST	NAG 5 6947	107
11	UNIV OF CALIFORNIA - SAN DIEGO	D EVANS	HQ	W WHITE	NAG 5 7653	108
11	UNIV OF CALIFORNIA - SAN DIEGO	D K WEST	GSFC	D L BAND	NAG 5 3685	104
11	UNIV OF CALIFORNIA - SAN DIEGO	D K WEST	GSFC	P R BLANCO	NAG 5 7896	109
11	UNIV OF CALIFORNIA - SAN DIEGO	D K WEST	GSFC	R E LINGENFELTER	NAG 5 7045	107
11	UNIV OF CALIFORNIA - SAN DIEGO	D NAVA	GSFC	D MARTI	NAG 5 4284	105
11	UNIV OF CALIFORNIA - SAN DIEGO	D NAVA	GSFC	D MARTI	NAG 5 4543	105
11	UNIV OF CALIFORNIA - SAN DIEGO	D WEST	GSFC	D R TYTLER	NAG 5 3237	104
11	UNIV OF CALIFORNIA - SAN DIEGO	D WEST	GSFC	F W HAMANN	NAG 5 3234	103
11	UNIV OF CALIFORNIA - SAN DIEGO	D WEST	GSFC	G M FULLER	NAG 5 3062	103
11	UNIV OF CALIFORNIA - SAN DIEGO	D WEST	GSFC	R E LINGENFELTER	NAG 5 2811	103
11	UNIV OF CALIFORNIA - SAN DIEGO	F A HERRERO	GSFC	J L MATTESON	NAG 5 8731	110
11	UNIV OF CALIFORNIA - SAN DIEGO	G J FISHMAN	MSFC	J L MATTERSON	NAS 8 36081	111
11	UNIV OF CALIFORNIA - SAN DIEGO	J BOYCE	GSFC	D GUIRRENBAC	NAG 5 8272	109
11	UNIV OF CALIFORNIA - SAN DIEGO	J BOYCE	GSFC	D H THIEMENS	NAG 5 4574	105
11	UNIV OF CALIFORNIA - SAN DIEGO	J BOYCE	GSFC	D H THIEMENS	NAG 5 4948	106
11	UNIV OF CALIFORNIA - SAN DIEGO	J BOYCE	GSFC	D MARTI	NAG 5 8167	109
11	UNIV OF CALIFORNIA - SAN DIEGO	J BOYCE	GSFC	D R ARNOLD	NAG 5 4671	106
11	UNIV OF CALIFORNIA - SAN DIEGO	J BOYCE	GSFC	G W LUNGMAIR	NAG 5 8172	109
11	UNIV OF CALIFORNIA - SAN DIEGO	J BOYCE	GSFC	J R ARNOLD	NAG 5 8610	109
11	UNIV OF CALIFORNIA - SAN DIEGO	J LING	GSFC	B JACKSON	NAG 5 6475	107
11	UNIV OF CALIFORNIA - SAN DIEGO	J M BOYCE	GSFC	J L BADA	NAG 5 4937	106
11	UNIV OF CALIFORNIA - SAN DIEGO	J NORRIS	GSFC	D BAND	NAG 5 6743	107
11	UNIV OF CALIFORNIA - SAN DIEGO	J P MURPHY	GSFC	J L MATTESON	NAS 5 97121	111
11	UNIV OF CALIFORNIA - SAN DIEGO	J P NORRIS	GSFC	D L BAND	NAG 5 3115	103
11	UNIV OF CALIFORNIA - SAN DIEGO	J P NORRIS	GSFC	D L BAND	NAG 5 7887	108
11	UNIV OF CALIFORNIA - SAN DIEGO	J P NORRIS	GSFC	D L BAND	NAG 5 7975	109

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF CALIFORNIA - SAN DIEGO	J P NORRIS	GSFC	R E LINGENFELTER	NAG 5 3668	104
11	UNIV OF CALIFORNIA - SAN DIEGO	J P NORRIS	GSFC	R LINGENFELTER	NAG 5 6550	107
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	D BAND	NAG 5 7277	108
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	D BAND	NAG 5 7643	108
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	D GRUBER	NAG 5 3272	104
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	D GRUBER	NAG 5 3450	104
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	D GRUBER	NAG 5 4798	106
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	D GRUBER	NAG 5 7000	107
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	P BLANCO	NAG 5 3274	104
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	P BLANCO	NAG 5 4622	105
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	P BLANCO	NAG 5 7023	107
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	P R BLANCO	NAG 5 7332	108
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	R LINGENFELTER	NAG 5 3275	104
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	R LINGENFELTER	NAG 5 6334	106
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	R ROTHSCCHILD	NAG 5 3273	104
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	R ROTHSCCHILD	NAG 5 3810	104
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	W A HEINDL	NAG 5 7440	108
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	W HEINDL	NAG 5 4410	105
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	W HEINDL	NAG 5 4417	105
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	W HEINDL	NAG 5 4621	105
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	Y RAPHAELI	NAG 5 3381	104
11	UNIV OF CALIFORNIA - SAN DIEGO	J SWANK	GSFC	Y REPHAELI	NAG 5 4623	105
11	UNIV OF CALIFORNIA - SAN DIEGO	K SWANK	GSFC	D E GRIBER	NAG 5 7119	108
11	UNIV OF CALIFORNIA - SAN DIEGO	L J KALUZIENSKI	HQ	J L MATTESON	NAGW 449	110
11	UNIV OF CALIFORNIA - SAN DIEGO	M MEYER	GSFC	M N FOMENKOVA	NAG 5 8551	109
11	UNIV OF CALIFORNIA - SAN DIEGO	M SHEPANAK	GSFC	L A PALINKAS	NAG 5 4571	105
11	UNIV OF CALIFORNIA - SAN DIEGO	N WHITE	GSFC	R COHEN	NAG 5 7400	108
11	UNIV OF CALIFORNIA - SAN DIEGO	N WHITE	GSFC	R COHEN	NAG 5 7568	108
11	UNIV OF CALIFORNIA - SAN DIEGO	N WHITE	GSFC	R D COHEN	NAG 5 2517	103
11	UNIV OF CALIFORNIA - SAN DIEGO	N WHITE	GSFC	R D COHEN	NAG 5 7362	108
11	UNIV OF CALIFORNIA - SAN DIEGO	N WHITE	GSFC	W TUCKER	NAG 5 3398	104
11	UNIV OF CALIFORNIA - SAN DIEGO	S SOBIESKI	GSFC	R HARMS	NAG 5 1630	103
11	UNIV OF CALIFORNIA - SAN DIEGO	W D DAVIS	GSFC	R E ROTHSCCHILD	NAG 5 30720	111
11	UNIV OF CALIFORNIA - SAN DIEGO	W WAGNER	GSFC	B V JACKSON	NAG 5 8504	109
11	UNIV OF CALIFORNIA - SAN DIEGO	W WAGNER	GSFC	P HICK	NAG 5 7295	108
11	UNIV OF CALIFORNIA - SANTA BARBARA	D K WEST	GSFC	O M BLAES	NAG 5 7075	116
11	UNIV OF CALIFORNIA - SANTA BARBARA	D WEST	GSFC	L BILDSTEN	NAG 5 8658	117
11	UNIV OF CALIFORNIA - SANTA BARBARA	D WEST	GSFC	R J ANTONUCCI	NAG 5 3334	115
11	UNIV OF CALIFORNIA - SANTA BARBARA	D WICKLAND	GSFC	J MELACK	NAG 5 6226	116
11	UNIV OF CALIFORNIA - SANTA BARBARA	H THRONSON	GSFC	D E RUHL	NAG 5 4455	115
11	UNIV OF CALIFORNIA - SANTA BARBARA	H THRONSON	GSFC	M MEINHOLD	NAG 5 4185	115
11	UNIV OF CALIFORNIA - SANTA BARBARA	H THRONSON	GSFC	P M LUBIN	NAG 5 4078	115
11	UNIV OF CALIFORNIA - SANTA BARBARA	J A GRANT	GSFC	D TANIMOTO	NAG 5 7981	117
11	UNIV OF CALIFORNIA - SANTA BARBARA	J BOYCE	GSFC	S J PEALE	NAG 5 7177	116
11	UNIV OF CALIFORNIA - SANTA BARBARA	J SWANK	GSFC	C GWINN	NAG 5 7273	116
11	UNIV OF CALIFORNIA - SANTA BARBARA	J SWANK	GSFC	O M BLAES	NAG 5 7125	116
11	UNIV OF CALIFORNIA - SANTA BARBARA	N E WHITE	GSFC	D FOSTER	NAG 5 7940	117
11	UNIV OF CALIFORNIA - SANTA BARBARA	N WHITE	GSFC	F CORDOVA	NAG 5 7714	118
11	UNIV OF CALIFORNIA - SANTA BARBARA	R A SHAFER	GSFC	P LUBIN	NAG 5 3814	115
11	UNIV OF CALIFORNIA - SANTA BARBARA	R DONNELLY	GSFC	D CORDOVA	NAG 5 6911	116
11	UNIV OF CALIFORNIA - SANTA BARBARA	R E DONNELL	GSFC	F A COROGVA	NAG 5 97119	118
11	UNIV OF CALIFORNIA - SANTA BARBARA	R J OLIVERSEN	GSFC	O M BLAES	NAG 5 7048	116
11	UNIV OF CALIFORNIA - SANTA CRUZ	D J HOLLENBACH	ARC	P H BODENHEIMER	NCC 2 649	121
11	UNIV OF CALIFORNIA - SANTA CRUZ	D J HOLLENBACH	ARC	P H BODENHEIMER	NCC 2 1081	121
11	UNIV OF CALIFORNIA - SANTA CRUZ	D K WEST	GSFC	D C KOO	NAG 5 3507	120
11	UNIV OF CALIFORNIA - SANTA CRUZ	D K WEST	GSFC	D F ZARITSKY	NAG 5 3501	120
11	UNIV OF CALIFORNIA - SANTA CRUZ	D K WEST	GSFC	J R PRIMACK	NAG 5 8218	121
11	UNIV OF CALIFORNIA - SANTA CRUZ	D K WEST	GSFC	L E HERNQUIST	NAG 5 3820	120
11	UNIV OF CALIFORNIA - SANTA CRUZ	D K WEST	GSFC	P GUHATHAKURTA	NAG 5 8348	121
11	UNIV OF CALIFORNIA - SANTA CRUZ	D K WEST	GSFC	S E WOOSLEY	NAG 5 8128	121
11	UNIV OF CALIFORNIA - SANTA CRUZ	D K WEST	GSFC	W G MATHEWS	NAG 5 8409	121
11	UNIV OF CALIFORNIA - SANTA CRUZ	D WEST	GSFC	D N LIN	NAG 5 3059	120
11	UNIV OF CALIFORNIA - SANTA CRUZ	D WEST	GSFC	J R PRIMACK	NAG 5 3061	120
11	UNIV OF CALIFORNIA - SANTA CRUZ	D WEST	GSFC	P GUHATHAKURTA	NAG 5 3232	120
11	UNIV OF CALIFORNIA - SANTA CRUZ	D WEST	GSFC	S E WOOSLEY	NAG 5 2843	119
11	UNIV OF CALIFORNIA - SANTA CRUZ	D WEST	GSFC	W G MATTHEWS	NAG 5 3060	120

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF CALIFORNIA - SANTA CRUZ	J BOYCE	GSFC	D H BODENHEIMER	NAG 5 4494	120
11	UNIV OF CALIFORNIA - SANTA CRUZ	J BOYCE	GSFC	D H BODENHEIMER	NAG 5 4610	120
11	UNIV OF CALIFORNIA - SANTA CRUZ	J BOYCE	GSFC	D LIN	NAG 5 4277	120
11	UNIV OF CALIFORNIA - SANTA CRUZ	J BOYCE	HQ	D LIN	NAG 5 7515	121
11	UNIV OF CALIFORNIA - SANTA CRUZ	J BOYCE	HQ	D N LIN	NAG 5 8196	121
11	UNIV OF CALIFORNIA - SANTA CRUZ	J D BREGMAN	ARC	D M RANK	NCC 2 5273	122
11	UNIV OF CALIFORNIA - SANTA CRUZ	J N CUZZI	ARC	N ROSENBERG	NCC 2 5297	122
11	UNIV OF CALIFORNIA - SANTA CRUZ	J N CUZZI	ARC	P BODENHEIMER	NCC 2 5254	122
11	UNIV OF CALIFORNIA - SANTA CRUZ	J NORRIS	GSFC	S WOOSLEY	NAG 5 3434	120
11	UNIV OF CALIFORNIA - SANTA CRUZ	M DIJOSEPH	GSFC	D P JOHNSON	NCC 5 195	122
11	UNIV OF CALIFORNIA - SANTA CRUZ	M S BURRELL	GSFC	P GUHATHAKURTA	NGT 5 43	122
11	UNIV OF CALIFORNIA - SANTA CRUZ	N WHITE	GSFC	A ZABLUDOFF	NAG 5 6771	121
11	UNIV OF CALIFORNIA - SANTA CRUZ	P ROGERS	GSFC	E ASPHAUG	NAG 5 7245	121
11	UNIV OF CALIFORNIA - SANTA CRUZ	R M CASSEN	ARC	P BODENHEIMER	NGT 2 52217	122
11	UNIV OF CHICAGO	A NURRIDIN	HQ	J E CARLSTROM	NGT 5 50173	216
11	UNIV OF CHICAGO	B F SMITH	ARC	R N MILLER	NCC 2 1103	216
11	UNIV OF CHICAGO	C BENNETT	GSFC	S MEYER	NAG 5 8539	215
11	UNIV OF CHICAGO	C L BENNETT	GSFC	S S MEYER	NAG 5 3253	212
11	UNIV OF CHICAGO	D F NAVA	GSFC	D M STEELE	NAG 5 4702	213
11	UNIV OF CHICAGO	D K WEST	GSFC	D N SCHRAMM	NAG 5 4234	213
11	UNIV OF CHICAGO	D K WEST	GSFC	D Q LAMB	NAG 5 4509	213
11	UNIV OF CHICAGO	D K WEST	GSFC	J E CARLSTROM	NAG 5 7986	215
11	UNIV OF CHICAGO	D K WEST	GSFC	M MILLER	NAG 5 8571	215
11	UNIV OF CHICAGO	D NAVA	GSFC	D S LEWIS	NAG 5 4297	213
11	UNIV OF CHICAGO	D WEST	GSFC	D E WELTY	NAG 5 3228	212
11	UNIV OF CHICAGO	D WEST	GSFC	D Q LAMB	NAG 5 2868	212
11	UNIV OF CHICAGO	D WEST	GSFC	P FRISCH	NAG 5 6405	214
11	UNIV OF CHICAGO	D WEST	GSFC	S G TRURAN	NAG 5 3076	212
11	UNIV OF CHICAGO	G A SOFFEN	GSFC	M S TURNER	NGT 5 19	216
11	UNIV OF CHICAGO	G BULLOCK	GSFC	J A SIMPSON	NAG 5 706	212
11	UNIV OF CHICAGO	G F HINSHAW	GSFC	S MEYER	NAG 5 8817	215
11	UNIV OF CHICAGO	G HINSHAW	GSFC	S MEYER	NAG 5 7529	215
11	UNIV OF CHICAGO	H THRONSON	GSFC	D MEYER	NAG 5 6489	214
11	UNIV OF CHICAGO	H THRONSON	GSFC	D OKA	NAG 5 4070	212
11	UNIV OF CHICAGO	H THRONSON	GSFC	P D FRISCH	NAG 5 6625	214
11	UNIV OF CHICAGO	J BOYCE	GSFC	D E CARLSTROM	NAG 5 4462	213
11	UNIV OF CHICAGO	J BOYCE	GSFC	D E ECONOMOU	NAG 5 4499	213
11	UNIV OF CHICAGO	J BOYCE	GSFC	D GROSSMAN	NAG 5 4476	213
11	UNIV OF CHICAGO	J BOYCE	GSFC	D N CLAYTON	NAG 5 4461	213
11	UNIV OF CHICAGO	J BOYCE	HQ	D M DAVIS	NAG 5 4298	213
11	UNIV OF CHICAGO	J BOYCE	HQ	F M RICHTER	NAG 5 6972	214
11	UNIV OF CHICAGO	J BOYCE	HQ	I M STEELE	NAG 5 7308	215
11	UNIV OF CHICAGO	J BOYCE	HQ	L GROSSMAN	NAG 5 7172	214
11	UNIV OF CHICAGO	J BOYCE	HQ	L GROSSMAN	NAG 5 7307	215
11	UNIV OF CHICAGO	J BOYCE	HQ	R CLAYTON	NAG 5 7212	214
11	UNIV OF CHICAGO	J BREDEKAP	GSFC	P C FRISCH	NAG 5 8163	215
11	UNIV OF CHICAGO	J GRANT	GSFC	G H MILLER	NAG 5 7880	215
11	UNIV OF CHICAGO	J KING	GSFC	C LOPATE	NAG 5 8032	215
11	UNIV OF CHICAGO	J LING	GSFC	J SIMPSON	NAG 5 6472	214
11	UNIV OF CHICAGO	J LING	GSFC	P C FRISCH	NAG 5 7077	214
11	UNIV OF CHICAGO	J P NORRIS	GSFC	A KONIGL	NAG 5 3687	212
11	UNIV OF CHICAGO	J P NORRIS	GSFC	D Q LAMB	NAG 5 3670	212
11	UNIV OF CHICAGO	J P NORRIS	GSFC	D Q LAMB	NAG 5 4406	213
11	UNIV OF CHICAGO	J P NORRIS	GSFC	R A ONG	NAG 5 6957	214
11	UNIV OF CHICAGO	L QUAIFE	ARC	R H HILDEBRANCH	NAG 2 1081	211
11	UNIV OF CHICAGO	P CRANE	GSFC	R KRON	NAG 5 8703	215
11	UNIV OF CHICAGO	R A STACHNIK	HQ	L M HOBBS	NAGW 4682	216
11	UNIV OF CHICAGO	R BEEBE	GSFC	R PIERREHUMBERT	NAG 5 7731	215
11	UNIV OF CHICAGO	R PETRE	GSFC	R NICHOL	NAG 5 3202	212
11	UNIV OF CHICAGO	R POLIDAN	GSFC	P FRISCH	NAG 5 6765	214
11	UNIV OF CHICAGO	T MORGAN	GSFC	P PALMER	NAG 5 8708	215
11	UNIV OF CHICAGO	W WAGNER	GSFC	R MCKIBBEN	NAG 5 7163	214
11	UNIV OF CINCINNATI	M MEYER	GSFC	A I MILLER	NAG 5 6946	424
11	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	F BAGENAL	NGT 5 50197	149
11	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	J C GREEN	NGT 5 50176	149
11	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	P S CONTI	NGT 5 50194	149

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF COLORADO - BOULDER	A SMITH	GSFC	J C BRANDT	NAG 5 1853	131
11	UNIV OF COLORADO - BOULDER	C MUCKLOW	GSFC	A L BETZ	NAG 5 8538	143
11	UNIV OF COLORADO - BOULDER	D EVANS	GSFC	D RUSCH	NAG 5 7725	141
11	UNIV OF COLORADO - BOULDER	D EVANS	GSFC	F BAGENAL	NAG 5 7088	140
11	UNIV OF COLORADO - BOULDER	D EVANS	HQ	D RUSCH	NAG 5 7652	141
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	A J HAMILTON	NAG 5 7128	140
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	C S REYNOLDS	NAG 5 7897	142
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	J BALLY	NAG 5 8108	142
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	J SHULL	NAG 5 7262	140
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	J T STOCKE	NAG 5 6936	139
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	M C BEGELMAN	NAG 5 4061	134
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	M C BEGELMAN	NAG 5 7723	141
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	M J SHULL	NAG 5 4063	134
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	P BENNETT	NAG 5 6901	139
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	R A MCCRAY	NAG 5 8236	142
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	A J HAMILTON	NAG 5 2797	132
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	G HARPER	NAG 5 4804	136
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	G S STRINGFELLOW	NAG 5 3152	132
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	G S STRINGFELLOW	NAG 5 3394	133
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	M A NOWAK	NAG 5 3225	133
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	M BEGELMAN	NAG 5 6337	138
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	P D BENNETT	NAG 5 3033	132
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	R A MCCRAY	NAG 5 3133	132
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	S L SKINNER	NAG 5 3224	133
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	T A AYRES	NAG 5 3226	133
11	UNIV OF COLORADO - BOULDER	E T ENGMAN	GSFC	A FREI	NAG 5 7496	141
11	UNIV OF COLORADO - BOULDER	G C CLAYTON	HQ	J M SCHULL	NAGW 766	144
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	D L BENDER	NAG 5 4095	134
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	D P SNOW	NAG 5 4184	134
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	D T STEBBINS	NAG 5 7638	141
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	D WILKINSON	NAG 5 7465	141
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	D WILKINSON	NAG 5 7851	142
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	P T STOCKE	NAG 5 3794	133
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	T SNOW	NAG 5 6758	139
11	UNIV OF COLORADO - BOULDER	H J ZWALLY	GSFC	J WAHR	NAG 5 2977	132
11	UNIV OF COLORADO - BOULDER	H THRONSON	GSFC	D M SHULL	NAG 5 4312	135
11	UNIV OF COLORADO - BOULDER	J A SLAVIN	GSFC	D N BAKER	NAG 5 7112	140
11	UNIV OF COLORADO - BOULDER	J BERGSTRAHLH	GSFC	D BRANDT	NAG 5 4561	135
11	UNIV OF COLORADO - BOULDER	J BOYCE	GSFC	D CANUP	NAG 5 4459	135
11	UNIV OF COLORADO - BOULDER	J BOYCE	GSFC	J M FORBES	NAG 5 8755	143
11	UNIV OF COLORADO - BOULDER	J BOYCE	GSFC	R CANUP	NAG 5 7167	140
11	UNIV OF COLORADO - BOULDER	J BOYCE	HQ	A W NOLIN	NAG 5 8259	142
11	UNIV OF COLORADO - BOULDER	J BOYCE	HQ	D HORANDYI	NAG 5 6138	137
11	UNIV OF COLORADO - BOULDER	J BOYCE	HQ	D STEWART	NAG 5 6048	137
11	UNIV OF COLORADO - BOULDER	J BOYCE	HQ	J M FORBES	NAG 5 8266	143
11	UNIV OF COLORADO - BOULDER	J BOYCE	HQ	T P SNOW	NAG 5 7449	141
11	UNIV OF COLORADO - BOULDER	J GRANT	GSFC	D H GRINSPOON	NAG 5 7759	141
11	UNIV OF COLORADO - BOULDER	J H RAHE	HQ	N M SCNEIDER	NAGW 2492	144
11	UNIV OF COLORADO - BOULDER	J M GREBOWSKY	GSFC	J TOOMRE	NAG 5 8133	142
11	UNIV OF COLORADO - BOULDER	J P NORRIS	GSFC	M C BEGELMAN	NAG 5 2026	131
11	UNIV OF COLORADO - BOULDER	J P NORRIS	GSFC	M C BEGELMAN	NAG 5 3514	133
11	UNIV OF COLORADO - BOULDER	J SWANK	GSFC	A BROWN	NAG 5 4422	135
11	UNIV OF COLORADO - BOULDER	J SWANK	GSFC	A BROWN	NAG 5 7398	140
11	UNIV OF COLORADO - BOULDER	J SWANK	GSFC	C REYNOLDS	NAG 5 7329	140
11	UNIV OF COLORADO - BOULDER	J SWANK	GSFC	M A NOWAK	NAG 5 3310	133
11	UNIV OF COLORADO - BOULDER	J SWANK	GSFC	M BEGELMAN	NAG 5 4731	136
11	UNIV OF COLORADO - BOULDER	J SWANK	GSFC	M BEGELMAN	NAG 5 4737	136
11	UNIV OF COLORADO - BOULDER	J SWANK	GSFC	M BEGELMAN	NAG 5 7339	140
11	UNIV OF COLORADO - BOULDER	J SWANK	GSFC	M BEGELMAN	NAG 5 7340	140
11	UNIV OF COLORADO - BOULDER	J SWANK	GSFC	M C BEGELMAN	NAG 5 7024	140
11	UNIV OF COLORADO - BOULDER	J T BERGSTRAHLH	HQ	S R LEONE	NAGW 2438	144
11	UNIV OF COLORADO - BOULDER	L FEINBERG	GSFC	J GREEN	NAS 5 98043	145
11	UNIV OF COLORADO - BOULDER	L J EARLY	GSFC	T P SNOW	NSG 5303	149
11	UNIV OF COLORADO - BOULDER	L LING	GSFC	D PRYOR	NAG 5 6474	138
11	UNIV OF COLORADO - BOULDER	L QUAIFE	ARC	A L BETZ	NAG 2 1062	130
11	UNIV OF COLORADO - BOULDER	L QUAIFE	ARC	R T BOREIKO	NAG 2 1056	130

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF COLORADO - BOULDER	M M BOYCE	HQ	D R STEWART	NAG 5 6302	138
11	UNIV OF COLORADO - BOULDER	M MELLOTT	GSFC	M CODRESCU	NAG 5 6984	139
11	UNIV OF COLORADO - BOULDER	M MELLOTT	GSFC	S PALO	NAG 5 6791	139
11	UNIV OF COLORADO - BOULDER	M S BURRELL	GSFC	D N BAKER	NGT 5 49	147
11	UNIV OF COLORADO - BOULDER	N R HALL	GRC	D R OHLSEN	NAG 3 1848	131
11	UNIV OF COLORADO - BOULDER	N WHITE	GSFC	A BROWN	NAG 5 2530	132
11	UNIV OF COLORADO - BOULDER	N WHITE	GSFC	A BROWN	NAG 5 4783	136
11	UNIV OF COLORADO - BOULDER	N WHITE	GSFC	G STRINGFELLOW	NAG 5 3153	132
11	UNIV OF COLORADO - BOULDER	P CRANE	GSFC	R T STEBBINS	NAG 5 6880	139
11	UNIV OF COLORADO - BOULDER	P ROGERS	GSFC	R E GRIMM	NAG 5 7190	140
11	UNIV OF COLORADO - BOULDER	R A HOFFMAN	GSFC	D BAKER	NAG 5 97140	145
11	UNIV OF COLORADO - BOULDER	R BEEBE	GSFC	A HENDRIX	NAG 5 8178	142
11	UNIV OF COLORADO - BOULDER	R BEEBE	GSFC	D H GRINSPOON	NAG 5 8337	143
11	UNIV OF COLORADO - BOULDER	R BEEBE	GSFC	D R PRYOR	NAG 5 8096	142
11	UNIV OF COLORADO - BOULDER	R BEEBE	GSFC	D W LEE	NAG 5 7881	142
11	UNIV OF COLORADO - BOULDER	R BEEBE	GSFC	L W ESPOSITO	NAG 5 8338	143
11	UNIV OF COLORADO - BOULDER	R BEEBE	GSFC	N M SCHNEIDER	NAG 5 8047	142
11	UNIV OF COLORADO - BOULDER	R BEEBE	GSFC	O TOON	NAG 5 6900	139
11	UNIV OF COLORADO - BOULDER	R BEEBE	GSFC	W PRYOR	NAG 5 8256	142
11	UNIV OF COLORADO - BOULDER	R H THOMAS	GSFC	D MASLANIK	NAG 5 4119	134
11	UNIV OF COLORADO - BOULDER	R J OLIVERSEN	GSFC	A BROWN	NAG 5 4735	136
11	UNIV OF COLORADO - BOULDER	R J OLIVERSEN	GSFC	A BROWN	NAG 5 7020	139
11	UNIV OF COLORADO - BOULDER	R J OLIVERSEN	GSFC	G S STRINGFELLOW	NAG 5 7223	140
11	UNIV OF COLORADO - BOULDER	R J OLIVERSEN	GSFC	T R AYRES	NAG 5 6690	139
11	UNIV OF COLORADO - BOULDER	R OLIVERSEN	GSFC	A BROWN	NAG 5 2259	132
11	UNIV OF COLORADO - BOULDER	R OLIVERSEN	GSFC	G S STRINGFELLOW	NAG 5 3421	133
11	UNIV OF COLORADO - BOULDER	R OLIVERSEN	GSFC	J L LINSKY	NAG 5 2891	132
11	UNIV OF COLORADO - BOULDER	R OLIVERSEN	GSFC	N T SCHNEIDER	NAG 5 6708	139
11	UNIV OF COLORADO - BOULDER	R PETRE	GSFC	G S STRINGFELLOW	NAG 5 4786	136
11	UNIV OF COLORADO - BOULDER	R PETRE	GSFC	J MORSE	NAG 5 4784	136
11	UNIV OF COLORADO - BOULDER	R PETRE	GSFC	J T STOCKE	NAG 5 4518	135
11	UNIV OF COLORADO - BOULDER	R V STACHNIK	HQ	M C BEGELMAN	NAGW 3838	145
11	UNIV OF COLORADO - BOULDER	W HUEBNER	GSFC	D M SCHNEIDER	NAG 5 4615	136
11	UNIV OF COLORADO - BOULDER	W J WAGNER	GSFC	D BAGENAL	NAG 5 6270	138
11	UNIV OF COLORADO - BOULDER	W WAGNER	GSFC	T R AYRES	NAG 5 7234	140
11	UNIV OF COLORADO - DENVER	J P NORRIS	GSFC	A C SADUN	NAG 5 7327	149
11	UNIV OF COLORADO - DENVER	J P NORRIS	GSFC	A SADUN	NAG 5 8384	150
11	UNIV OF CONNECTICUT	J I TROMBKA	GSFC	J S SCHWEITZER	NAG 5 8602	152
11	UNIV OF CONNECTICUT	J TROMBKA	GSFC	J SCHWEITZER	NAG 5 7182	151
11	UNIV OF CONNECTICUT	M MEYER	GSFC	P J GOGARTEN	NAG 5 7915	152
11	UNIV OF DAYTON	J BOYCE	GSFC	D M KOZOL	NAG 5 8199	425
11	UNIV OF DAYTON	J BOYCE	HQ	A W PHELPS	NAG 5 8451	426
11	UNIV OF DAYTON	J BOYCE	HQ	D PHELPS	NAG 5 4575	425
11	UNIV OF DAYTON	R FOREMAN	JSC	D E TRITSCH	NAG 9 916	426
11	UNIV OF DELAWARE - BARTOL RES. INST	A POLAND	GSFC	P EVENSEN	NAG 5 2606	156
11	UNIV OF DELAWARE - BARTOL RES. INST	D C LING	GSFC	G P ZANK	NAG 5 7796	158
11	UNIV OF DELAWARE - BARTOL RES. INST	D K WEST	GSFC	S P OWOCKI	NAG 5 3530	156
11	UNIV OF DELAWARE - BARTOL RES. INST	D WEST	HQ	D MULLAN	NAG 5 6905	157
11	UNIV OF DELAWARE - BARTOL RES. INST	D WEST	HQ	K GAYLEY	NAG 5 4065	157
11	UNIV OF DELAWARE - BARTOL RES. INST	J H BREDEKAMP	GSFC	R PYLE	NAG 5 8014	158
11	UNIV OF DELAWARE - BARTOL RES. INST	J LING	GSFC	G ZANK	NAG 5 6469	157
11	UNIV OF DELAWARE - BARTOL RES. INST	J LING	GSFC	J A LE ROUX	NAG 5 6969	157
11	UNIV OF DELAWARE - BARTOL RES. INST	J LING	HQ	C SMITH	NAG 5 6570	157
11	UNIV OF DELAWARE - BARTOL RES. INST	J LING	HQ	J BIEBER	NAG 5 7142	157
11	UNIV OF DELAWARE - BARTOL RES. INST	J LING	HQ	S OWOCKI	NAG 5 6470	157
11	UNIV OF DELAWARE - BARTOL RES. INST	J M DAVILLA	GSFC	D MULLAN	NAG 5 7585	157
11	UNIV OF DELAWARE - BARTOL RES. INST	M FORMAN	GSFC	D BIEBER	NAG 5 4997	157
11	UNIV OF DELAWARE - BARTOL RES. INST	R SILVERBERG	GSFC	PICCIRILLO	NAG 5 6061	157
11	UNIV OF DELAWARE - BARTOL RES. INST	W WAGNER	GSFC	W H MATTHAEUS	NAG 5 7164	157
11	UNIV OF DELAWARE - BARTOL RES. INST	W WAGNER	HQ	D MULLAN	NAG 5 7143	157
11	UNIV OF DELAWARE	D K WEST	GSFC	T STANOV	NAG 5 7009	156
11	UNIV OF DELAWARE	J M DAVILA	GSFC	D MULLAN	NAG 5 8696	156
11	UNIV OF DELAWARE	R J OLIVERSEN	GSFC	J L PROVENCAL	NAG 5 6686	156
11	UNIV OF DELAWARE	W WAGNER	GSFC	D J MULLAN	NAG 5 7237	156
11	UNIV OF DENVER	D K WEST	GSFC	R E STENCEL	NAG 5 3411	150
11	UNIV OF DENVER	M SMITH	GSFC	T STEPHEN	NAG 5 3386	150

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF FLORIDA	A NURRIDIN	HQ	C TELESCO	NGT 5 50177	182
11	UNIV OF FLORIDA	D K WEST	GSFC	F W HAMANN	NAG 5 8522	180
11	UNIV OF FLORIDA	D WEST	GSFC	C M TELESCO	NAG 5 3343	179
11	UNIV OF FLORIDA	D WEST	GSFC	E LADA	NAG 5 6751	180
11	UNIV OF FLORIDA	D WEST	GSFC	J N FRY	NAG 5 2835	179
11	UNIV OF FLORIDA	E F ERICKSON	ARC	C M TELESCO	NCC 2 5246	181
11	UNIV OF FLORIDA	H HASAN	GSFC	P R IPSE	NAG 5 3936	179
11	UNIV OF FLORIDA	H THRONSON	GSFC	D T VALA	NAG 5 4287	179
11	UNIV OF FLORIDA	J BERGSTALH	GSFC	D CAMPINS	NAG 5 4036	179
11	UNIV OF FLORIDA	J BOYCE	HQ	C TELESCO	NAG 5 8472	180
11	UNIV OF FLORIDA	W HUEBNER	GSFC	D CAMPINS	NAG 5 4204	179
11	UNIV OF GEORGIA	D K WEST	GSFC	J CAILLAUT	NAG 5 6902	197
11	UNIV OF GEORGIA	D K WEST	GSFC	L MAGNANI	NAG 5 8376	198
11	UNIV OF GEORGIA	D K WEST	GSFC	P H HAUSCHILDT	NAG 5 8425	198
11	UNIV OF GEORGIA	D WEST	GSFC	L MAGNANI	NAG 5 3433	197
11	UNIV OF GEORGIA	D WEST	GSFC	P H HAUSCHILDT	NAG 5 3618	197
11	UNIV OF GEORGIA	D WEST	GSFC	P HAUSCHILDT	NAG 5 3619	197
11	UNIV OF GEORGIA	J BOYCE	HQ	C ROMANEK	NAG 5 6322	197
11	UNIV OF GEORGIA	N WHITE	GSFC	J CAILLAUT	NAG 5 6769	197
11	UNIV OF GEORGIA	R PETRE	GSFC	J P CAILLAUT	NAG 5 1610	197
11	UNIV OF HAWAII AT MANOA - HONOLULU	A NURRIDIN	HQ	J HENRY	NGT 5 50175	206
11	UNIV OF HAWAII AT MANOA - HONOLULU	B CAMPBELL	GSFC	S K SHARMA	NAG 5 7139	201
11	UNIV OF HAWAII AT MANOA - HONOLULU	D HOLLAND	HQ	B J LABONTE	NGT 5 1286	206
11	UNIV OF HAWAII AT MANOA - HONOLULU	D HOLLENBACH	ARC	J L HORA	NCC 2 5194	205
11	UNIV OF HAWAII AT MANOA - HONOLULU	D K WEST	GSFC	J E BARNES	NAG 5 8393	203
11	UNIV OF HAWAII AT MANOA - HONOLULU	D K WEST	GSFC	J HENRY	NAG 5 8253	202
11	UNIV OF HAWAII AT MANOA - HONOLULU	D K WEST	GSFC	N KAISER	NAG 5 7038	201
11	UNIV OF HAWAII AT MANOA - HONOLULU	D K WEST	GSFC	T SIMON	NAG 5 8216	202
11	UNIV OF HAWAII AT MANOA - HONOLULU	D NAVA	GSFC	D C JEWITT	NAG 5 4669	200
11	UNIV OF HAWAII AT MANOA - HONOLULU	D WEST	GSFC	J E BARNES	NAG 5 2836	199
11	UNIV OF HAWAII AT MANOA - HONOLULU	D WEST	GSFC	R D JOSEPH	NAG 5 3370	199
11	UNIV OF HAWAII AT MANOA - HONOLULU	D WEST	GSFC	T SIMON	NAG 5 6753	201
11	UNIV OF HAWAII AT MANOA - HONOLULU	E BARKER	HQ	D JEWITT	NAGW 4601	204
11	UNIV OF HAWAII AT MANOA - HONOLULU	E BARKER	HQ	D N HALL	NAGW 5062	205
11	UNIV OF HAWAII AT MANOA - HONOLULU	E SMITH	GSFC	D N HALL	NAG 5 8421	203
11	UNIV OF HAWAII AT MANOA - HONOLULU	F SIX	MSFC	W D HEACOX	NAG 8 994	203
11	UNIV OF HAWAII AT MANOA - HONOLULU	G L BJORAKER	GSFC	T C OWEN	NCC 5 373	205
11	UNIV OF HAWAII AT MANOA - HONOLULU	H C BRINTON	HQ	B SMITH	NAGW 3099	204
11	UNIV OF HAWAII AT MANOA - HONOLULU	H C BRINTON	HQ	D J THOLEN	NAGW 3044	204
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BERGSTALH	GSFC	D J MEECH	NAG 5 4495	200
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BERGSTALH	GSFC	D J RODDIER	NAG 5 3731	200
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BERGSTALH	GSFC	D JEWITT	NAG 5 6501	201
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BERGSTALH	GSFC	D OWEN	NAG 5 6561	201
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	K KEIL	NAG 5 8713	203
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	HQ	D J RODDIER	NAG 5 8298	203
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	HQ	L KESZTHELYI	NAG 5 8168	202
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	HQ	T MCCORD	NAG 5 8300	203
11	UNIV OF HAWAII AT MANOA - HONOLULU	J CAMPBELL	GSFC	R R BIDIGARE	NAG 5 7171	202
11	UNIV OF HAWAII AT MANOA - HONOLULU	J GURMAN	GSFC	J R KUHN	NAG 5 8002	202
11	UNIV OF HAWAII AT MANOA - HONOLULU	J H RAHE	HQ	D JEWITT	NAGW 3973	204
11	UNIV OF HAWAII AT MANOA - HONOLULU	J R UNDERWOOD	HQ	W J BELL	NAGW 802	203
11	UNIV OF HAWAII AT MANOA - HONOLULU	J RAHE	HQ	D JEWITT	NAGW 3900	204
11	UNIV OF HAWAII AT MANOA - HONOLULU	J RAHE	HQ	T OWEN	NAGW 2650	204
11	UNIV OF HAWAII AT MANOA - HONOLULU	J SWANK	GSFC	H EBELING	NAG 5 6336	200
11	UNIV OF HAWAII AT MANOA - HONOLULU	J WILLETT	GSFC	B J LABONTE	NAG 5 6220	200
11	UNIV OF HAWAII AT MANOA - HONOLULU	K W HODAPP	ARC	D N HALL	NAS 2 98077	205
11	UNIV OF HAWAII AT MANOA - HONOLULU	M MEYER	GSFC	T C OWEN	NAG 5 8593	203
11	UNIV OF HAWAII AT MANOA - HONOLULU	N WHITE	GSFC	J P HENRY	NAG 5 2523	199
11	UNIV OF HAWAII AT MANOA - HONOLULU	N WHITE	GSFC	T SIMON	NAG 5 3388	199
11	UNIV OF HAWAII AT MANOA - HONOLULU	P G ROGERS	HQ	D JEWITT	NAGW 4889	204
11	UNIV OF HAWAII AT MANOA - HONOLULU	P ROGERS	HQ	F RODDIER	NAGW 4650	204
11	UNIV OF HAWAII AT MANOA - HONOLULU	R BEEBE	GSFC	D P FANALE	NAG 5 7868	202
11	UNIV OF HAWAII AT MANOA - HONOLULU	R BEEBE	GSFC	T B MCCORD	NAG 5 8275	202
11	UNIV OF HAWAII AT MANOA - HONOLULU	R OLIVERSEN	GSFC	T SIMON	NAG 5 2275	199
11	UNIV OF HAWAII AT MANOA - HONOLULU	R PETRE	GSFC	J P HENRY	NAG 5 1880	199
11	UNIV OF HAWAII AT MANOA - HONOLULU	R PETRE	GSFC	T SIMON	NAG 5 2022	199

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF HAWAII AT MANOA - HONOLULU	R POLIDAN	GSFC	T P SIMON	NAG 5 6695	201
11	UNIV OF HAWAII AT MANOA - HONOLULU	T MORGAN	GSFC	D C JEWITT	NAG 5 7156	202
11	UNIV OF HAWAII AT MANOA - HONOLULU	T MORGAN	GSFC	D G LUCEY	NAG 5 7855	202
11	UNIV OF HAWAII AT MANOA - HONOLULU	T MORGAN	GSFC	D J THOLEN	NAG 5 4524	200
11	UNIV OF HAWAII AT MANOA - HONOLULU	T MORGAN	GSFC	D JEWITT	NAG 5 7056	201
11	UNIV OF HAWAII AT MANOA - HONOLULU	V KUNDE	GSFC	T OWEN	NAG 5 2663	199
11	UNIV OF HAWAII AT MANOA - HONOLULU	W HUEBNER	GSFC	D J THOLEN	NAG 5 4223	200
11	UNIV OF HAWAII AT MANOA - HONOLULU	W WAGNER	GSFC	J R KUHN	NAG 5 8330	203
11	UNIV OF HAWAII SYSTEM	D HOLLAND	HQ	D B SANDERS	NGT 51387	207
11	UNIV OF HAWAII SYSTEM	D NAVA	GSFC	D J RODDIER	NAG 5 4227	206
11	UNIV OF HAWAII SYSTEM	E BARKER	HQ	D JEWITT	NAGW 4816	207
11	UNIV OF HAWAII SYSTEM	J BERGSTRALH	GSFC	D F BELL	NAG 5 4133	206
11	UNIV OF HAWAII SYSTEM	J BERGSTRALH	GSFC	P HALL	NAG 5 4355	207
11	UNIV OF HAWAII SYSTEM	J BERHGSTRALH	GSFC	D C JEWITT	NAG 5 4249	206
11	UNIV OF HAWAII SYSTEM	J BOYCE	GSFC	D B MCCORD	NAG 5 4344	206
11	UNIV OF HAWAII SYSTEM	J BOYCE	GSFC	D KEIL	NAG 5 4443	207
11	UNIV OF HAWAII SYSTEM	N WHITE	GSFC	J HENRY	NAG 5 4828	207
11	UNIV OF HAWAII SYSTEM	R JOLIVERSEN	GSFC	T SIMON	NAG 5 4631	207
11	UNIV OF HAWAII SYSTEM	R PETRE	GSFC	T SIMON	NAG 5 6168	207
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	A BARNES	ARC	T MOUSCHOVIAS	NGT 2 52244	222
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D K WEST	GSFC	F K LAMB	NAG 5 8424	221
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D K WEST	GSFC	M L NORMAN	NAG 5 3923	219
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D K WEST	GSFC	M L NORMAN	NAG 5 7404	220
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D K WEST	GSFC	S L SHAPIRO	NAG 5 7152	220
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D K WEST	GSFC	S L SHAPIRO	NAG 5 8418	221
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D K WEST	GSFC	U CHU	NAG 5 8104	221
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D K WEST	GSFC	Y CHU	NAG 5 7003	220
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D K WEST	GSFC	Y CHU	NAG 5 8103	221
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D WEST	GSFC	F D SWETSY	NAG 5 3099	219
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D WEST	GSFC	F K LAMB	NAG 5 2925	219
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D WEST	GSFC	M MELXNER	NAG 5 3350	219
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D WEST	GSFC	S L SHAPIRO	NAG 5 3420	219
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D WEST	GSFC	Y CHU	NAG 5 3246	219
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	G A SOFFEN	GSFC	L A THOMPSON	NGT 5 14	223
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J BOYCE	GSFC	F LAMB	NAG 5 8740	221
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J BREDEKAMP	GSFC	R PLANTE	NAG 5 8514	221
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J R FISCHER	GSFC	D BALSARA	NAG 5 2667	219
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	M MEYER	GSFC	C WOESE	NAG 5 8479	221
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	N WHITE	GSFC	Y CHU	NAG 5 2988	219
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R D KOSTER	GSFC	P KUMAR	NAG 5 3661	219
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R PETRE	GSFC	D BOMANS	NAG 5 4793	220
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R PETRE	GSFC	Y CHU	NAG 5 4863	220
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R PETRE	GSFC	Y H CHU	NAG 5 1900	219
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	T MORGAN	GSFC	L SYNDER	NAG 5 8521	221
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	W HUEBNER	GSFC	D E SNYDER	NAG 5 4292	220
11	UNIV OF IOWA	B GUYNES	MSFC	J GOREE	NAG 8 292	235
11	UNIV OF IOWA	D WEST	GSFC	J D FIX	NAG 5 3318	233
11	UNIV OF IOWA	G ASRAR	GSFC	W F KRAJEWSKI	NGT 5 30031	236
11	UNIV OF IOWA	J BREDEKAMP	GSFC	D ANDERSON	NAG 5 7187	234
11	UNIV OF IOWA	J LING	GSFC	I H CAIRNS	NAG 5 7390	234
11	UNIV OF IOWA	J SWANK	GSFC	R EDELSON	NAG 5 3295	233
11	UNIV OF IOWA	L E LASHER	ARC	J A VAN ALLEN	NAG 2 571	233
11	UNIV OF IOWA	W WAGNER	GSFC	D CAIRNS	NAG 5 6127	234
11	UNIV OF KANSAS	D WEST	GSFC	K ASHMAN	NAG 5 6766	238
11	UNIV OF KANSAS	G ASRAR	GSFC	S GOGINENI	NGT 5 30029	239
11	UNIV OF KANSAS	H HASAN	GSFC	D L MELOTT	NAG 5 4039	238
11	UNIV OF KANSAS	J T BERGSTRALH	HQ	T E CRAVENS	NAGW 1588	238
11	UNIV OF KANSAS	J WILLETT	GSFC	D P ARMSTRONG	NAG 5 4523	238
11	UNIV OF KENTUCKY	D GOORITCH	ARC	D J FERLAND	NCC 2 5193	241
11	UNIV OF KENTUCKY	D K WEST	GSFC	D A VERNER	NAG 5 4235	240
11	UNIV OF KENTUCKY	D K WEST	GSFC	G J FERLAND	NAG 5 4510	240
11	UNIV OF KENTUCKY	D K WEST	GSFC	G J FERLAND	NAG 5 8212	240
11	UNIV OF KENTUCKY	D K WEST	GSFC	I SHLOSMAN	NAG 5 3841	240
11	UNIV OF KENTUCKY	D WEST	GSFC	FERLAND	NAG 5 3223	240
11	UNIV OF KENTUCKY	D WEST	GSFC	M ELITZUR	NAG 5 3010	240
11	UNIV OF KENTUCKY	J BREDEKAMP	GSFC	D VERNER	NAG 5 8148	240

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF KENTUCKY	J BREDEKAMP	GSFC	G J FERLAND	NAG 5 8165	240
11	UNIV OF LOUISVILLE	R BEEBE	GSFC	T E DOWLING	NAG 5 6913	241
11	UNIV OF MARYLAND - COLLEGE PARK	A HARDING	GSFC	J D TRASCO	NCC 5 180	275
11	UNIV OF MARYLAND - COLLEGE PARK	A POLAND	GSFC	F I PAVICH	NAG 5 2754	262
11	UNIV OF MARYLAND - COLLEGE PARK	C J CRANNELL	GSFC	M R KUNDU	NAG 5 2001	262
11	UNIV OF MARYLAND - COLLEGE PARK	D C LING	GSFC	D LUKASIAK	NAG 5 8079	271
11	UNIV OF MARYLAND - COLLEGE PARK	D CHOW	GSFC	D T PINKER	NAG 5 3134	263
11	UNIV OF MARYLAND - COLLEGE PARK	D J HOLLENBACH	ARC	L G MUNDY	NCC 2 5237	275
11	UNIV OF MARYLAND - COLLEGE PARK	D J HOLLENBACH	ARC	M G WOLFIRE	NCC 2 5348	275
11	UNIV OF MARYLAND - COLLEGE PARK	D J HOLLENHACH	ARC	L G MUNDY	NCC 2 1058	275
11	UNIV OF MARYLAND - COLLEGE PARK	D K WEST	GSFC	A LUKASIAK	NAG 5 7069	268
11	UNIV OF MARYLAND - COLLEGE PARK	D K WEST	GSFC	C M LISSE	NAG 5 7908	270
11	UNIV OF MARYLAND - COLLEGE PARK	D K WEST	GSFC	E C OSTRIKER	NAG 5 3840	264
11	UNIV OF MARYLAND - COLLEGE PARK	D K WEST	GSFC	J L WANG	NAG 5 3836	264
11	UNIV OF MARYLAND - COLLEGE PARK	D K WEST	GSFC	W CHEN	NAG 5 7879	270
11	UNIV OF MARYLAND - COLLEGE PARK	D L WILLIAMS	GSFC	S GOWARD	NCC 5 133	275
11	UNIV OF MARYLAND - COLLEGE PARK	D LAVERY	GSFC	D AKIN	NAG 5 6443	267
11	UNIV OF MARYLAND - COLLEGE PARK	D LAVERY	GSFC	D AKIN	NCC 5 243	276
11	UNIV OF MARYLAND - COLLEGE PARK	D LAVERY	GSFC	D L AKIN	NCC 5 417	276
11	UNIV OF MARYLAND - COLLEGE PARK	D LAVERY	HQ	D SANNER	NAG 5 7628	270
11	UNIV OF MARYLAND - COLLEGE PARK	D NAVA	GSFC	D G MUNDY	NAG 5 4429	265
11	UNIV OF MARYLAND - COLLEGE PARK	D NAVA	GSFC	D J WALKER	NAG 5 4769	265
11	UNIV OF MARYLAND - COLLEGE PARK	D NORTON	GSFC	J D TRASCO	NAG 5 8842	273
11	UNIV OF MARYLAND - COLLEGE PARK	D TOLL	GSFC	J TOWNSHEND	NAS 5 96060	274
11	UNIV OF MARYLAND - COLLEGE PARK	D WEST	GSFC	D G CURRLA	NAG 5 3361	263
11	UNIV OF MARYLAND - COLLEGE PARK	D WEST	GSFC	M WOLFIRE	NAG 5 6750	268
11	UNIV OF MARYLAND - COLLEGE PARK	D WEST	GSFC	R A BELL	NAG 5 3028	263
11	UNIV OF MARYLAND - COLLEGE PARK	D WEST	GSFC	S VEILLEUX	NAG 5 6547	268
11	UNIV OF MARYLAND - COLLEGE PARK	E BARKER	HQ	M F A	NAGW 5088	273
11	UNIV OF MARYLAND - COLLEGE PARK	F EINAUDI	GSFC	R D HUDSON	NCC 5 55	275
11	UNIV OF MARYLAND - COLLEGE PARK	H HASAN	GSFC	D C BALACHANDRAN	NAG 5 4092	264
11	UNIV OF MARYLAND - COLLEGE PARK	H HASAN	GSFC	P P RICHARD	NAG 5 4096	264
11	UNIV OF MARYLAND - COLLEGE PARK	H THRONSON	GSFC	D HARRIS	NAG 5 6044	266
11	UNIV OF MARYLAND - COLLEGE PARK	J BERGSTRAHL	GSFC	D F A	NAG 5 4080	264
11	UNIV OF MARYLAND - COLLEGE PARK	J BOYCE	GSFC	P M STONE	NAG 5 4278	265
11	UNIV OF MARYLAND - COLLEGE PARK	J BOYCE	HQ	R J WALKER	NAG 5 7634	270
11	UNIV OF MARYLAND - COLLEGE PARK	J KING	GSFC	F I PAVICH	NAG 5 8033	270
11	UNIV OF MARYLAND - COLLEGE PARK	J LING	GSFC	C C GOODRICH	NAG 5 6318	267
11	UNIV OF MARYLAND - COLLEGE PARK	J LING	GSFC	F B MCDONALD	NAG 5 7141	269
11	UNIV OF MARYLAND - COLLEGE PARK	J LING	GSFC	F B MCDONALD	NAG 5 7762	270
11	UNIV OF MARYLAND - COLLEGE PARK	J P NORRIS	GSFC	G M MADEJSKI	NAG 5 4106	264
11	UNIV OF MARYLAND - COLLEGE PARK	J P NORRIS	GSFC	M LEVENTHAL	NAG 5 2380	262
11	UNIV OF MARYLAND - COLLEGE PARK	J P NORRIS	GSFC	M LEVENTHAL	NAG 5 7240	269
11	UNIV OF MARYLAND - COLLEGE PARK	J P NORRIS	GSFC	M R KUNDU	NAG 5 7180	269
11	UNIV OF MARYLAND - COLLEGE PARK	J P NORRIS	GSFC	S M WHITE	NAG 5 2885	262
11	UNIV OF MARYLAND - COLLEGE PARK	J SWANK	GSFC	D SMITE	NAG 5 3278	263
11	UNIV OF MARYLAND - COLLEGE PARK	J SWANK	GSFC	M STARK	NAG 5 3277	263
11	UNIV OF MARYLAND - COLLEGE PARK	J SWANK	GSFC	M STARK	NAG 5 4487	265
11	UNIV OF MARYLAND - COLLEGE PARK	J SWANK	GSFC	S M WHITE	NAG 5 7345	269
11	UNIV OF MARYLAND - COLLEGE PARK	J SWANK	GSFC	S WHITE	NAG 5 6958	268
11	UNIV OF MARYLAND - COLLEGE PARK	J SWANK	GSFC	W CHEN	NAG 5 8692	272
11	UNIV OF MARYLAND - COLLEGE PARK	M BURRELL	GSFC	R MUSHOTZKY	NGT 51096	277
11	UNIV OF MARYLAND - COLLEGE PARK	ME ROSENTHAL	MSFC	A S WILSON	NAG 8 1027	273
11	UNIV OF MARYLAND - COLLEGE PARK	N GAHRELS	GSFC	M LEVENTHAL	NAG 5 2386	262
11	UNIV OF MARYLAND - COLLEGE PARK	N WHITE	GSFC	A WILSON	NAG 5 3393	263
11	UNIV OF MARYLAND - COLLEGE PARK	N WHITE	GSFC	A WILSON	NAG 5 6142	266
11	UNIV OF MARYLAND - COLLEGE PARK	N WHITE	GSFC	C LISSE	NAG 5 6141	266
11	UNIV OF MARYLAND - COLLEGE PARK	N WHITE	GSFC	S M WHITE	NAG 5 3832	264
11	UNIV OF MARYLAND - COLLEGE PARK	P MC CLAIN	GSFC	J TRASCO	NCC 5 60	275
11	UNIV OF MARYLAND - COLLEGE PARK	R BEEBE	GSFC	D P HAMILTON	NAG 5 7958	270
11	UNIV OF MARYLAND - COLLEGE PARK	R HARTLE	GSFC	R D HUDSON	NCC 5 374	276
11	UNIV OF MARYLAND - COLLEGE PARK	R J OLIVERSEN	GSFC	C M LISSE	NAG 5 7392	269
11	UNIV OF MARYLAND - COLLEGE PARK	R PETRE	GSFC	C LISSE	NAG 5 6155	267
11	UNIV OF MARYLAND - COLLEGE PARK	R PETRE	GSFC	S M WHITE	NAG 5 6234	267
11	UNIV OF MARYLAND - COLLEGE PARK	R V STACHNIK	HQ	V TRIMBLE	NAGW 4670	273
11	UNIV OF MARYLAND - COLLEGE PARK	S CURTIS	GSFC	K PAPADOPOULOS	NAG 5 8411	272

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF MARYLAND - COLLEGE PARK	S S HOLT	GSFC	J D TRASCO	NAG 5 2400	262
11	UNIV OF MARYLAND - COLLEGE PARK	T KOSTIUK	GSFC	J D TRASCO	NCC 5 372	276
11	UNIV OF MARYLAND - COLLEGE PARK	T KOSTIUK	GSFC	J TRASCO	NCC 5 255	276
11	UNIV OF MARYLAND - COLLEGE PARK	T MORGAN	GSFC	M F A	NAG 5 8189	271
11	UNIV OF MARYLAND - COLLEGE PARK	V JONES	GSFC	D LEROUX	NAG 5 6426	267
11	UNIV OF MARYLAND - COLLEGE PARK	W HUEBNER	GSFC	D F A	NAG 5 4201	265
11	UNIV OF MARYLAND - COLLEGE PARK	W HUEBNER	GSFC	D F A	NAG 5 4740	265
11	UNIV OF MARYLAND - COLLEGE PARK	W WAGNER	GSFC	D KUNDU	NAG 5 6257	267
11	UNIV OF MARYLAND - COLLEGE PARK	W WAGNER	GSFC	D THEJAPPA	NAG 5 6059	266
11	UNIV OF MARYLAND - COLLEGE PARK	W WAGNER	GSFC	M J ASCHWANDEN	NAG 5 7233	269
11	UNIV OF MARYLAND - COLLEGE PARK	W WAGNER	GSFC	M KUNDU	NAG 5 7370	269
11	UNIV OF MARYLAND - COLLEGE PARK	W WAGNER	GSFC	S M WHITE	NAG 5 7232	269
11	UNIV OF MARYLAND - COLLEGE PARK	W WAGNER	GSFC	T GOLLA	NAG 5 7145	269
11	UNIV OF MARYLAND BALTIMORE COUNTY	D K WEST	GSFC	T J TURNER	NAG 5 7385	279
11	UNIV OF MARYLAND BALTIMORE COUNTY	J F ORMES	GSFC	G P SUMMERS	NCC 5 367	279
11	UNIV OF MASSACHUSETTS - AMHERST	D K WEST	GSFC	N KATZ	NAG 5 3922	309
11	UNIV OF MASSACHUSETTS - AMHERST	D K WEST	GSFC	N KATZ	NAG 5 4064	309
11	UNIV OF MASSACHUSETTS - AMHERST	D K WEST	GSFC	N KATZ	NAG 5 7575	309
11	UNIV OF MASSACHUSETTS - AMHERST	D NAVA	GSFC	D I GOLDSTEIN	NAG 5 4652	309
11	UNIV OF MASSACHUSETTS - AMHERST	D WEST	GSFC	J YOUNG	NAG 5 6848	309
11	UNIV OF MASSACHUSETTS - AMHERST	G CHIN	GSFC	N ERICKSON	NAG 5 6028	309
11	UNIV OF MASSACHUSETTS - AMHERST	H THRONSON	GSFC	D R ERICKSON	NAG 5 4272	309
11	UNIV OF MASSACHUSETTS - AMHERST	H THRONSON	GSFC	K YNGVESSON	NAG 5 7651	309
11	UNIV OF MASSACHUSETTS - AMHERST	J BOYCE	HQ	G E MCGILL	NAG 5 8184	310
11	UNIV OF MASSACHUSETTS - AMHERST	J BREDEKAMP	GSFC	M WEIENBERG	NAG 5 8197	310
11	UNIV OF MASSACHUSETTS - AMHERST	M MEYER	GSFC	W M IRVINE	NAG 5 8718	310
11	UNIV OF MASSACHUSETTS - AMHERST	W HUEBNER	GSFC	D SCHOERB	NAG 5 4743	309
11	UNIV OF MEMPHIS	W WAGNER	GSFC	J T SCHMELZ	NAG 5 7197	467
11	UNIV OF MIAMI	J W CAMPBELL	GSFC	E SALTZMAN	NAG 5 6659	183
11	UNIV OF MICHIGAN - ANN ARBOR	A F HASLER	GSFC	R M JOHNSON	NAG 5 8494	321
11	UNIV OF MICHIGAN - ANN ARBOR	D K WEST	GSFC	A E EVRARD	NAG 5 3401	317
11	UNIV OF MICHIGAN - ANN ARBOR	D K WEST	GSFC	A E EVRARD	NAG 5 7108	320
11	UNIV OF MICHIGAN - ANN ARBOR	D K WEST	GSFC	A E EVRARD	NAG 5 8458	321
11	UNIV OF MICHIGAN - ANN ARBOR	D K WEST	GSFC	D O RICHSTONE	NAG 5 8238	321
11	UNIV OF MICHIGAN - ANN ARBOR	D K WEST	GSFC	P A HUGHES	NAG 5 7032	320
11	UNIV OF MICHIGAN - ANN ARBOR	D WEST	GSFC	A E EVRARD	NAG 5 2790	317
11	UNIV OF MICHIGAN - ANN ARBOR	D WEST	GSFC	F C ADAMS	NAG 5 2869	317
11	UNIV OF MICHIGAN - ANN ARBOR	D WEST	GSFC	J N BREGMAN	NAG 5 3247	317
11	UNIV OF MICHIGAN - ANN ARBOR	D WEST	GSFC	J N BREGMAN	NAG 5 3352	317
11	UNIV OF MICHIGAN - ANN ARBOR	D WEST	GSFC	M R COMBI	NAG 5 2397	317
11	UNIV OF MICHIGAN - ANN ARBOR	J BERGSTRALH	GSFC	D R COMBI	NAG 5 6203	319
11	UNIV OF MICHIGAN - ANN ARBOR	J BOYCE	GSFC	D BRACE	NAG 5 4556	318
11	UNIV OF MICHIGAN - ANN ARBOR	J BOYCE	GSFC	D J SCHEERES	NAG 5 8715	321
11	UNIV OF MICHIGAN - ANN ARBOR	J BOYCE	GSFC	P K ATREYA	NAG 5 4379	318
11	UNIV OF MICHIGAN - ANN ARBOR	J BOYCE	HQ	A N HALLIDAY	NAG 5 7553	320
11	UNIV OF MICHIGAN - ANN ARBOR	J I TROMBKA	GSFC	G KNOLL	NAG 5 6960	320
11	UNIV OF MICHIGAN - ANN ARBOR	J J LISSAUER	ARC	F C ADAMS	NGT 2 52257	323
11	UNIV OF MICHIGAN - ANN ARBOR	J LING	GSFC	T ZURBUCHEN	NAG 5 6471	319
11	UNIV OF MICHIGAN - ANN ARBOR	J M BOYCE	GSFC	D N HALLIDAY	NAG 5 4855	318
11	UNIV OF MICHIGAN - ANN ARBOR	J P NORRIS	GSFC	M F ALLER	NAG 5 3679	317
11	UNIV OF MICHIGAN - ANN ARBOR	J P NORRIS	GSFC	M F ALLER	NAG 5 7322	320
11	UNIV OF MICHIGAN - ANN ARBOR	J P NORRIS	GSFC	M F ALLER	NAG 5 8577	321
11	UNIV OF MICHIGAN - ANN ARBOR	J SWANK	GSFC	C AKERLOF	NAG 5 3284	317
11	UNIV OF MICHIGAN - ANN ARBOR	J SWANK	GSFC	C W AKERLOF	NAG 5 4483	318
11	UNIV OF MICHIGAN - ANN ARBOR	J SWANK	GSFC	M ALLER	NAG 5 4244	318
11	UNIV OF MICHIGAN - ANN ARBOR	J SWANK	GSFC	M ALLER	NAG 5 7565	320
11	UNIV OF MICHIGAN - ANN ARBOR	M MELLOTT	GSFC	D R BARKER	NAG 5 8080	321
11	UNIV OF MICHIGAN - ANN ARBOR	R BEEBE	GSFC	D SHYN	NAG 5 7858	320
11	UNIV OF MICHIGAN - ANN ARBOR	R BEEBE	GSFC	J T CLARKE	NAG 5 6883	320
11	UNIV OF MICHIGAN - ANN ARBOR	R BEEBE	GSFC	T GOMBOSI	NAG 5 6827	320
11	UNIV OF MICHIGAN - ANN ARBOR	T KOSTIUK	HQ	W COOK	NAGW 4704	322
11	UNIV OF MICHIGAN - ANN ARBOR	T MORGAN	GSFC	D M BERNSTEIN	NAG 5 7860	320
11	UNIV OF MISSOURI - COLUMBIA	D WEST	GSFC	J BURNS	NAG 5 6772	336
11	UNIV OF MISSOURI - COLUMBIA	R PETRE	GSFC	J O BURNS	NAG 5 6698	336
11	UNIV OF MISSOURI - SAINT LOUIS	J BERGSTRALH	HQ	J J O	NAGW 2474	337
11	UNIV OF NEBRASKA - LINCOLN	N WHITE	GSFC	M GASKELL	NAG 5 6506	344

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF NEVADA - LAS VEGAS	D VITAGLIANO	GSFC	D WEISTROP	NAS 5 31231	346
11	UNIV OF NEVADA - LAS VEGAS	H HASAN	GSFC	V H KWONG	NAG 5 6727	346
11	UNIV OF NEVADA - RENO	J BOYCE	GSFC	R SCHULTZ	NAG 5 8267	346
11	UNIV OF NEVADA - RENO	P ROGERS	GSFC	R SCHULTZ	NAG 5 6881	346
11	UNIV OF NEW HAMPSHIRE - DURHAM	A NURRIDIN	HQ	D LYNCH	NGT 5 50096	355
11	UNIV OF NEW HAMPSHIRE - DURHAM	B A MERRITT	WFF	J M RYAN	NAG 5 5212	351
11	UNIV OF NEW HAMPSHIRE - DURHAM	D C LING	GSFC	D A LEE	NAG 5 7792	353
11	UNIV OF NEW HAMPSHIRE - DURHAM	D EVANS	GSFC	V K JORDANOVA	NAG 5 7368	352
11	UNIV OF NEW HAMPSHIRE - DURHAM	G MUCKLOW	GSFC	J QUINN	NAG 5 8733	354
11	UNIV OF NEW HAMPSHIRE - DURHAM	J A LING	GSFC	D A ISENBERG	NAG 5 4818	350
11	UNIV OF NEW HAMPSHIRE - DURHAM	J LING	GSFC	P A ISENBERG	NAG 5 7097	352
11	UNIV OF NEW HAMPSHIRE - DURHAM	J NORRIS	GSFC	J M RYAN	NAG 5 2350	349
11	UNIV OF NEW HAMPSHIRE - DURHAM	J NORRIS	GSFC	J RYAN	NAS 5 26645	354
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	A CONNORS	NAG 5 6864	352
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	D J MORRIS	NAG 5 6862	351
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	E CHUPP	NAG 5 2420	349
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	E L CHUPP	NAG 5 3518	349
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	J M RYAN	NAG 5 3807	349
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	J M RYAN	NAG 5 7178	352
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	J M RYAN	NAG 5 7179	352
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	J M RYAN	NAG 5 7895	353
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	J R RYAN	NAG 5 7891	353
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	M L MCCONNELL	NAG 5 6863	351
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	M L MCCONNELL	NAG 5 7745	352
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	M L MCCONNELL	NAG 5 7829	353
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	M MCCONNELL	NAG 5 8656	353
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	W R VESTRAND	NAG 5 3157	349
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	W T VESTRAND	NAG 5 5157	351
11	UNIV OF NEW HAMPSHIRE - DURHAM	J P NORRIS	GSFC	W VESTRAND	NAG 5 3671	349
11	UNIV OF NEW HAMPSHIRE - DURHAM	J SWANK	GSFC	M L MCCONNELL	NAG 5 7241	352
11	UNIV OF NEW HAMPSHIRE - DURHAM	J SWANK	GSFC	T VESTRAND	NAG 5 6992	352
11	UNIV OF NEW HAMPSHIRE - DURHAM	J SWANK	GSFC	T VESTRAND	NAG 5 7118	352
11	UNIV OF NEW HAMPSHIRE - DURHAM	J SWANK	GSFC	T W VESTRAND	NAG 5 3815	349
11	UNIV OF NEW HAMPSHIRE - DURHAM	J SWANK	GSFC	W VESTRAND	NAG 5 8436	353
11	UNIV OF NEW HAMPSHIRE - DURHAM	L ZANETTI	GSFC	D A LYNCH	NAG 5 7798	353
11	UNIV OF NEW HAMPSHIRE - DURHAM	W J WAGNER	GSFC	D G FORBES	NAG 5 4856	350
11	UNIV OF NEW HAMPSHIRE - DURHAM	W J WAGNER	GSFC	D VESTRANK	NAG 5 7052	352
11	UNIV OF NEW HAMPSHIRE - DURHAM	W J WAGNER	HQ	M L MCCONNELL	NAGW 5074	354
11	UNIV OF NEW HAMPSHIRE - DURHAM	W WAGNER	GSFC	J M RYAN	NAG 5 8486	353
11	UNIV OF NEW HAMPSHIRE - DURHAM	W WAGNER	GSFC	M L MCCONNELL	NAG 5 7294	352
11	UNIV OF NEW MEXICO-ALBUQUERQUE	D WEST	GSFC	M LEDLOW	NAG 5 6739	367
11	UNIV OF NEW MEXICO-ALBUQUERQUE	J BOYCE	GSFC	C SHEARER	NAG 5 6105	367
11	UNIV OF NEW MEXICO-ALBUQUERQUE	J BOYCE	GSFC	D J BREARLEY	NAG 5 4619	367
11	UNIV OF NEW MEXICO-ALBUQUERQUE	J M BOYCE	GSFC	A J BREARLEY	NAG 5 4935	367
11	UNIV OF NEW MEXICO-ALBUQUERQUE	J M BOYCE	GSFC	D J RIETMEIJER	NAG 5 4441	367
11	UNIV OF NEW MEXICO-ALBUQUERQUE	L ARMENDARIZ	JSC	J D TORRES	NAG 9 1042	368
11	UNIV OF NEW MEXICO-ALBUQUERQUE	R PETRE	GSFC	M LEDLOW	NAG 5 6417	367
11	UNIV OF NORTH DAKOTA	D K WEST	GSFC	M J HENRIKSEN	NAG 5 3488	408
11	UNIV OF NOTRE DAME	D K WEST	GSFC	D P BENNETT	NAG 5 4017	230
11	UNIV OF NOTRE DAME	J BOYCE	HQ	D BENNETT	NAG 5 4573	230
11	UNIV OF NOTRE DAME	J BOYCE	HQ	D R NEAL	NAG 5 8099	230
11	UNIV OF NOTRE DAME	J P NORRIS	GSFC	G J MATHEWS	NAG 5 3818	230
11	UNIV OF OKLAHOMA - NORMAN	D K WEST	GSFC	E A BARON	NAG 5 3505	431
11	UNIV OF OKLAHOMA - NORMAN	R PETRE	GSFC	W ROMANISHIN	NAG 5 3214	431
11	UNIV OF OREGON - EUGENE	D K WEST	GSFC	J IMAMURA	NAG 5 8505	436
11	UNIV OF OREGON - EUGENE	H SMITH	GSFC	D SCHOMBERT	NAG 5 6109	436
11	UNIV OF OREGON - EUGENE	J SWANK	GSFC	J IMAMURA	NAG 5 3282	436
11	UNIV OF OREGON - EUGENE	J SWANK	GSFC	J N IMAMURA	NAG 5 6962	436
11	UNIV OF PITTSBURGH	A NURRIDIN	HQ	R SCHULTE-LADBECK	NGT 5 50174	454
11	UNIV OF PITTSBURGH	B BETTS	GSFC	B W STEWART	NAG 5 8531	453
11	UNIV OF PITTSBURGH	D K WEST	GSFC	A CONNOLLY	NAG 5 8546	454
11	UNIV OF PITTSBURGH	D K WEST	GSFC	D A TURNSHEK	NAG 5 7930	453
11	UNIV OF PITTSBURGH	D K WEST	GSFC	J D HILLIER	NAG 5 8211	453
11	UNIV OF PITTSBURGH	D NAVA	GSFC	D GATEWOOD	NAG 5 4848	453
11	UNIV OF PITTSBURGH	J BOYCE	GSFC	D D GATEWOOD	NAG 5 4288	453
11	UNIV OF ROCHESTER	D K WEST	GSFC	A FRANK	NAG 5 8428	396

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF ROCHESTER	D WEST	GSFC	W J FORREST	NAG 5 3369	396
11	UNIV OF ROCHESTER	G MUCKLOW	GSFC	J L PIPHER	NAG 5 8642	396
11	UNIV OF ROCHESTER	H THRONSON	GSFC	D L PIPHER	NAG 5 6267	396
11	UNIV OF ROCHESTER	H THRONSON	GSFC	D M WATSON	NAG 5 4976	396
11	UNIV OF ROCHESTER	W J WAGNER	GSFC	D H THOMAS	NAG 5 6119	396
11	UNIV OF SOUTH CAROLINA-COLUMBIA	J BOYCE	HQ	J W SHERVIAS	NAG 5 8524	463
11	UNIV OF SOUTH CAROLINA-COLUMBIA	J M BOYCE	HQ	D W SHERVAIS	NAG 5 4442	463
11	UNIV OF SOUTHERN CALIFORNIA	D K WEST	GSFC	G J PETERS	NAG 5 3429	123
11	UNIV OF SOUTHERN CALIFORNIA	D K WEST	GSFC	G PETERS	NAG 5 7222	125
11	UNIV OF SOUTHERN CALIFORNIA	D K WEST	GSFC	G PETERS	NAG 5 8367	125
11	UNIV OF SOUTHERN CALIFORNIA	D WEST	GSFC	G J PETERS	NSG 5422	126
11	UNIV OF SOUTHERN CALIFORNIA	J GURMAN	GSFC	E J RHODES	NAG 5 8021	125
11	UNIV OF SOUTHERN CALIFORNIA	J LING	GSFC	M A GRUNTMAN	NAG 5 6966	124
11	UNIV OF SOUTHERN CALIFORNIA	R BEEBE	GSFC	D JUDGE	NAG 5 8274	125
11	UNIV OF SOUTHERN CALIFORNIA	R BEEBE	GSFC	D SHEMANSKY	NAG 5 6940	124
11	UNIV OF SOUTHERN CALIFORNIA	R J OLIVERSEN	GSFC	G J PETERS	NAG 5 4488	124
11	UNIV OF SOUTHERN CALIFORNIA	R J OLIVERSEN	GSFC	G J PETERS	NAG 5 7117	124
11	UNIV OF SOUTHERN CALIFORNIA	R OLIVERSEN	GSFC	G J PETERS	NAG 5 2313	123
11	UNIV OF SOUTHERN CALIFORNIA	R POLIDAN	GSFC	G PETERS	NAG 5 6696	124
11	UNIV OF SOUTHERN CALIFORNIA	W WAGNER	GSFC	D L JUDGE	NAG 5 7147	124
11	UNIV OF SOUTHERN CALIFORNIA	W WAGNER	GSFC	E J RHODES	NAG 5 8545	125
11	UNIV OF SOUTHERN CALIFORNIA	W WAGNER	GSFC	H S OGAWA	NAG 5 7369	125
11	UNIV OF SOUTHWESTERN LOUISIANA	W CAMPBELL	GSFC	N PISSINOU	NAG 5 2842	247
11	UNIV OF TENNESSEE - KNOXVILLE	D HOLLAND	GSFC	N THONNARD	NAG 5 3464	467
11	UNIV OF TENNESSEE - KNOXVILLE	D K WEST	GSFC	A MEZZACAPPA	NAG 5 8405	468
11	UNIV OF TENNESSEE - KNOXVILLE	D K WEST	GSFC	L A TAYLOR	NAG 5 8726	468
11	UNIV OF TENNESSEE - KNOXVILLE	D NAVA	GSFC	D A TAYLOR	NAG 5 4370	467
11	UNIV OF TENNESSEE - KNOXVILLE	G CHIN	GSFC	W E BLASS	NCC 5 88	469
11	UNIV OF TENNESSEE - KNOXVILLE	J BOYCE	GSFC	D V MCSWEEN	NAG 5 4541	467
11	UNIV OF TENNESSEE - KNOXVILLE	J BOYCE	GSFC	L A TAYLOR	NAG 5 8091	468
11	UNIV OF TENNESSEE - KNOXVILLE	J BOYCE	HQ	D A TAYLOR	NAG 5 4842	467
11	UNIV OF TENNESSEE - KNOXVILLE	J BOYCE	HQ	D Y MCSWEEN	NAG 5 4387	467
11	UNIV OF TENNESSEE - KNOXVILLE	J BOYCE	HQ	L A TAYLOR	NAG 5 8154	468
11	UNIV OF TENNESSEE - KNOXVILLE	J J HILLMAN	GSFC	W E BLASS	NAG 5 6237	467
11	UNIV OF TEXAS - AUSTIN	A SMITH	GSFC	L M TRAFTON	NAG 5 1855	490
11	UNIV OF TEXAS - AUSTIN	D K WEST	GSFC	B J WILLS	NAG 5 3431	491
11	UNIV OF TEXAS - AUSTIN	D K WEST	GSFC	C J WHEELER	NAG 5 3930	492
11	UNIV OF TEXAS - AUSTIN	D K WEST	GSFC	E ROBINSON	NAG 5 7002	493
11	UNIV OF TEXAS - AUSTIN	D K WEST	GSFC	P HOEFELICH	NAG 5 7937	494
11	UNIV OF TEXAS - AUSTIN	D K WEST	GSFC	P R SHAPIRO	NAG 5 7363	493
11	UNIV OF TEXAS - AUSTIN	D K WEST	GSFC	P R SHAPIRO	NAG 5 7821	494
11	UNIV OF TEXAS - AUSTIN	D K WEST	GSFC	R C DUNCAN	NAG 5 8381	494
11	UNIV OF TEXAS - AUSTIN	D WEST	GSFC	D E WINGET	NAG 5 2818	491
11	UNIV OF TEXAS - AUSTIN	D WEST	GSFC	D L LAMBERT	NAG 5 3348	491
11	UNIV OF TEXAS - AUSTIN	D WEST	GSFC	P R SHAPIRO	NAG 5 2785	491
11	UNIV OF TEXAS - AUSTIN	E RUITBERG	GSFC	D L LAMBERT	NAG 5 1616	490
11	UNIV OF TEXAS - AUSTIN	G STRINGFELLOW	GSFC	D JAFFE	NAG 5 4209	492
11	UNIV OF TEXAS - AUSTIN	H HASAN	GSFC	D J SHELLUS	NAG 5 3649	491
11	UNIV OF TEXAS - AUSTIN	H HASAN	GSFC	D J SHELUS	NAG 5 4008	492
11	UNIV OF TEXAS - AUSTIN	H HASAN	GSFC	D J SHELUS	NAG 5 4125	492
11	UNIV OF TEXAS - AUSTIN	H HASAN	GSFC	P J SHELUS	NAG 5 6728	493
11	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	J M SCALO	NAG 5 3107	491
11	UNIV OF TEXAS - AUSTIN	J BERGSTRALH	GSFC	D L COCHRAN	NAG 5 4208	492
11	UNIV OF TEXAS - AUSTIN	J BERGSTRALH	GSFC	D N BASH	NAG 5 3786	492
11	UNIV OF TEXAS - AUSTIN	J BERGSTRALH	GSFC	D S BARKER	NAG 5 6140	493
11	UNIV OF TEXAS - AUSTIN	J BERGSTRALH	GSFC	D TRAFTON	NAG 5 4934	492
11	UNIV OF TEXAS - AUSTIN	J BERGSTRALH	HQ	E BAKER	NAGW 5187	496
11	UNIV OF TEXAS - AUSTIN	J BOYCE	GSFC	D B GOLDSTEIN	NAG 5 8704	494
11	UNIV OF TEXAS - AUSTIN	J BOYCE	GSFC	D D COCHRAN	NAG 5 4384	492
11	UNIV OF TEXAS - AUSTIN	J BOYCE	HQ	D P HATZES	NAG 5 8301	494
11	UNIV OF TEXAS - AUSTIN	J BOYCE	HQ	N J EVANS	NAG 5 7203	493
11	UNIV OF TEXAS - AUSTIN	J D ROSEDHAL	GSFC	S BARNES	NAG 5 4566	492
11	UNIV OF TEXAS - AUSTIN	J H RAHE	HQ	H J SMITH	NAGW 1477	495
11	UNIV OF TEXAS - AUSTIN	J H RAHE	HQ	L M TRAFTON	NAGW 2314	495
11	UNIV OF TEXAS - AUSTIN	J H RAHE	HQ	W COCHRAN	NAGW 3990	495
11	UNIV OF TEXAS - AUSTIN	J JELETIC	GSFC	W H JEFFERYS	NAG 5 1603	490

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF TEXAS - AUSTIN	J R FISHER	GSFC	E T VISHNIAC	NAG 5 2773	491
11	UNIV OF TEXAS - AUSTIN	J SWANK	GSFC	E ROBINSON	NAG 5 3325	491
11	UNIV OF TEXAS - AUSTIN	J SWANK	GSFC	E ROBINSON	NAG 5 4059	492
11	UNIV OF TEXAS - AUSTIN	L QUAIFE	ARC	H L DINERSTEIN	NAG 2 1053	490
11	UNIV OF TEXAS - AUSTIN	L QUAIFE	ARC	J H LACY	NAG 2 1051	490
11	UNIV OF TEXAS - AUSTIN	L QUAIFE	ARC	P M HARVEY	NAG 2 1083	490
11	UNIV OF TEXAS - AUSTIN	R BEEBE	GSFC	D GOLDSTEIN	NAG 5 8143	494
11	UNIV OF TEXAS - AUSTIN	T MORGAN	GSFC	D S BARKER	NAG 5 6368	493
11	UNIV OF TEXAS - AUSTIN	T MORGAN	GSFC	D S BARKER	NAG 5 7791	494
11	UNIV OF TEXAS - DALLAS	J BOYCE	GSFC	D HODGES	NAG 5 4371	497
11	UNIV OF TEXAS - DALLAS	M MELLOTT	GSFC	D R COLEY	NAG 5 7309	498
11	UNIV OF TOLEDO	D K WEST	GSFC	J E BJORKMAN	NAG 5 8794	428
11	UNIV OF TOLEDO	D K WEST	GSFC	K BJORKMAN	NAG 5 3447	427
11	UNIV OF TOLEDO	D K WEST	GSFC	K S BJORKMAN	NAG 5 8054	427
11	UNIV OF TOLEDO	D K WEST	GSFC	S R FEDERMAN	NAG 5 4957	427
11	UNIV OF TOLEDO	D WEST	GSFC	A N WITT	NAG 5 3367	427
11	UNIV OF TOLEDO	D WEST	GSFC	J E BJORKMAN	NAG 5 3248	427
11	UNIV OF TOLEDO	H HASAN	GSFC	D N WITT	NAG 5 3790	427
11	UNIV OF TOLEDO	H HASAN	GSFC	S R FEDERMAN	NAG 5 6729	427
11	UNIV OF TOLEDO	H HASAN	GSFC	S R FEDERMAN	NAG 5 7754	427
11	UNIV OF TOLEDO	H THRONSON	GSFC	D N WITT	NAG 5 4338	427
11	UNIV OF TOLEDO	J BOYCE	HQ	P B JAMES	NAG 5 8183	428
11	UNIV OF TOLEDO	J LING	GSFC	A WITT	NAG 5 6624	427
11	UNIV OF UTAH	D K WEST	GSFC	B C BROMLEY	NAG 5 8277	502
11	UNIV OF UTAH	J F ORMES	GSFC	E C LOH	NAG 5 3902	501
11	UNIV OF UTAH	J P NORRIS	GSFC	B J DINGUS	NAG 5 7828	502
11	UNIV OF UTAH	J P NORRIS	GSFC	B L DINGUS	NAG 5 3802	501
11	UNIV OF UTAH	L KALUZIENSKI	GSFC	M SALAMON	NAG 5 8826	502
11	UNIV OF VERMONT	J BOYCE	HQ	T RUSHMER	NAG 5 7247	506
11	UNIV OF VIRGINIA	D BOYCE	GSFC	D E JOHNSON	NAG 5 4283	523
11	UNIV OF VIRGINIA	D K WEST	GSFC	B DORMAN	NAG 5 7104	524
11	UNIV OF VIRGINIA	D K WEST	GSFC	C L SARAZIN	NAG 5 8390	525
11	UNIV OF VIRGINIA	D K WEST	GSFC	R A CHEVALIER	NAG 5 8130	524
11	UNIV OF VIRGINIA	D K WEST	GSFC	R A CHEVALIER	NAG 5 8232	525
11	UNIV OF VIRGINIA	D K WEST	GSFC	R W O	NAG 5 3428	522
11	UNIV OF VIRGINIA	D NAVA	GSFC	D BARAGIOLA	NAG 5 4651	523
11	UNIV OF VIRGINIA	D WEST	GSFC	C L SARAZIN	NAG 5 3057	522
11	UNIV OF VIRGINIA	D WEST	GSFC	J F HAWLEY	NAG 5 3058	522
11	UNIV OF VIRGINIA	D WEST	GSFC	J M RICHARDS	NAG 5 3056	522
11	UNIV OF VIRGINIA	D WEST	GSFC	R O	NAG 5 6403	523
11	UNIV OF VIRGINIA	G CHIN	GSFC	J HESLER	NAG 5 4750	523
11	UNIV OF VIRGINIA	H THRONSON	GSFC	D W CROWE	NAG 5 6084	523
11	UNIV OF VIRGINIA	J A NUTH	GSFC	L U LILLELEHT	NCC 5 79	526
11	UNIV OF VIRGINIA	J BOYCE	GSFC	S A BALBUS	NAG 5 4600	523
11	UNIV OF VIRGINIA	J BOYCE	HQ	D A CHEVALIER	NAG 5 8088	524
11	UNIV OF VIRGINIA	J BOYCE	HQ	R A BARAGIOLA	NAG 5 7168	524
11	UNIV OF VIRGINIA	J BOYCE	HQ	R A BARAGIOLA	NAG 5 8444	525
11	UNIV OF VIRGINIA	J BOYCE	HQ	S BALBUS	NAG 5 7500	524
11	UNIV OF VIRGINIA	N WHITE	GSFC	C L SARAZIN	NAG 5 4516	523
11	UNIV OF VIRGINIA	R BEEBE	GSFC	R BARAGIOLA	NAG 5 6828	524
11	UNIV OF VIRGINIA	R BEEBE	GSFC	R E JOHNSON	NAG 5 7749	524
11	UNIV OF VIRGINIA	T P STECHER	GSFC	R W O CONNELL	NAG 5 700	522
11	UNIV OF WASHINGTON	D EVANS	GSFC	R M WIWNGLEE	NAG 5 8089	538
11	UNIV OF WASHINGTON	D H WOODEN	ARC	D BROWNLEE	NGT 2 52219	541
11	UNIV OF WASHINGTON	D K WEST	GSFC	P SZKODY	NAG 5 8374	539
11	UNIV OF WASHINGTON	D K WEST	GSFC	S F ANDERSON	NAG 5 7932	538
11	UNIV OF WASHINGTON	D WEST	GSFC	C J HOGAN	NAG 5 2793	534
11	UNIV OF WASHINGTON	D WEST	GSFC	G R LAKE	NAG 5 3023	534
11	UNIV OF WASHINGTON	D WEST	GSFC	P SZKODY	NAG 5 3345	534
11	UNIV OF WASHINGTON	E SMITH	GSFC	D MARGON	NAG 5 7767	538
11	UNIV OF WASHINGTON	H HASAN	GSFC	C W STUBBS	NAG 5 7054	537
11	UNIV OF WASHINGTON	H HASAN	GSFC	J H GUNDLACH	NAG 5 6942	537
11	UNIV OF WASHINGTON	J BOYCE	GSFC	D E BROWNLEE	NAG 5 4473	535
11	UNIV OF WASHINGTON	J BOYCE	GSFC	D S MCCALLUM	NAG 5 4540	535
11	UNIV OF WASHINGTON	J BREDEKAMP	GSFC	G LAKE	NAG 5 8164	539
11	UNIV OF WASHINGTON	J FISCHER	GSFC	G LAKE	NAG 5 6626	537

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	UNIV OF WASHINGTON	J SWANK	GSFC	B MARGON	NAG 5 3293	534
11	UNIV OF WASHINGTON	J SWANK	GSFC	P E BOYNTON	NAG 5 4105	535
11	UNIV OF WASHINGTON	J SWANK	GSFC	P SZKODY	NAG 5 3292	534
11	UNIV OF WASHINGTON	J SWANK	GSFC	P SZKODY	NAG 5 4791	536
11	UNIV OF WASHINGTON	J SWANK	GSFC	P SZKODY	NAG 5 7278	538
11	UNIV OF WASHINGTON	L KALUZIENSKI	GSFC	B MARGON	NAG 5 7330	538
11	UNIV OF WASHINGTON	M DAHL	HQ	D E BROWNLEE	NAG 7 3	539
11	UNIV OF WASHINGTON	N WHITE	GSFC	P SZKODY	NAG 5 2767	534
11	UNIV OF WASHINGTON	R H THOMAS	GSFC	T QUIN	NAG 5 4242	535
11	UNIV OF WASHINGTON	R J OLIVERSEN	GSFC	P SZKODY	NAG 5 6688	537
11	UNIV OF WASHINGTON	R J OLIVERSEN	GSFC	P SZKODY	NAG 5 7107	537
11	UNIV OF WASHINGTON	R OLIVERSEN	GSFC	P SZKODY	NAG 5 3121	534
11	UNIV OF WASHINGTON	R PETRE	GSFC	E MAGNIER	NAG 5 6885	537
11	UNIV OF WASHINGTON	R PETRE	GSFC	E MAGNIER	NAG 5 6995	537
11	UNIV OF WASHINGTON	R PETRE	GSFC	G LAKE	NAG 5 2213	534
11	UNIV OF WASHINGTON	R PETRE	GSFC	P SZKODY	NAG 5 1927	533
11	UNIV OF WISCONSIN - MADISON	A SMITH	GSFC	B D SAVAGE	NAG 5 1852	547
11	UNIV OF WISCONSIN - MADISON	D EVANS	GSFC	P WANG	NAG 5 7605	550
11	UNIV OF WISCONSIN - MADISON	D K WEST	GSFC	B P WAKKER	NAG 5 7444	550
11	UNIV OF WISCONSIN - MADISON	D K WEST	GSFC	D P COX	NAG 5 8417	551
11	UNIV OF WISCONSIN - MADISON	D K WEST	GSFC	H B OGELMAN	NAG 5 8333	551
11	UNIV OF WISCONSIN - MADISON	D K WEST	GSFC	K H NORDSIECK	NAG 5 3377	548
11	UNIV OF WISCONSIN - MADISON	D K WEST	GSFC	K H NORDSIECK	NAG 5 7931	550
11	UNIV OF WISCONSIN - MADISON	D K WEST	GSFC	K WOOD	NAG 5 3430	548
11	UNIV OF WISCONSIN - MADISON	D K WEST	GSFC	R D MATHIEU	NAG 5 8280	551
11	UNIV OF WISCONSIN - MADISON	D K WEST	GSFC	W T SANDERS	NAG 5 3524	548
11	UNIV OF WISCONSIN - MADISON	D WEST	GSFC	D P COX	NAG 5 3155	548
11	UNIV OF WISCONSIN - MADISON	D WEST	GSFC	J P CASSINE III	NAG 5 3315	548
11	UNIV OF WISCONSIN - MADISON	D WEST	GSFC	J P CASSINELLI	NAG 5 2854	547
11	UNIV OF WISCONSIN - MADISON	D WEST	GSFC	M BERSHADY	NAG 5 6032	549
11	UNIV OF WISCONSIN - MADISON	H D VITAGLIANO	GSFC	F ROESLER	NAG 5 30131	552
11	UNIV OF WISCONSIN - MADISON	H HASAN	GSFC	J LAWLER	NAG 5 6833	549
11	UNIV OF WISCONSIN - MADISON	J BOYCE	GSFC	B L BEARD	NAG 5 6342	549
11	UNIV OF WISCONSIN - MADISON	J H RAHE	HQ	E CHURCHWELL	NAGW 3877	552
11	UNIV OF WISCONSIN - MADISON	J SWANK	GSFC	H OGELMAN	NAG 5 4625	549
11	UNIV OF WISCONSIN - MADISON	L QUAIFFE	ARC	E B CHURCHWELL	NAG 2 859	546
11	UNIV OF WISCONSIN - MADISON	M S BURRELL	GSFC	P TIMBIE	NGT 5 46	553
11	UNIV OF WISCONSIN - MADISON	N WHITE	GSFC	C MARKWARDT	NAG 5 6993	549
11	UNIV OF WISCONSIN - MADISON	N WHITE	GSFC	J CASSINELLI	NAG 5 2705	547
11	UNIV OF WISCONSIN - MADISON	R BEEBE	GSFC	D M HARRIS	NAG 5 7952	550
11	UNIV OF WISCONSIN - MADISON	R BEEBE	GSFC	L A SROMOVSKY	NAG 5 8057	550
11	UNIV OF WISCONSIN - MADISON	R J OLIVERSEN	GSFC	J P CASSINELLI	NAG 5 4761	549
11	UNIV OF WISCONSIN - MADISON	R L KELLEY	GSFC	D MCCAMMON	NAG 5 8652	551
11	UNIV OF WISCONSIN - MADISON	R OLIVERSEN	GSFC	C ANDERSON	NAG 5 3700	548
11	UNIV OF WISCONSIN - MADISON	R OLIVERSEN	GSFC	F SCHERB	NAG 5 6546	549
11	UNIV OF WISCONSIN - MADISON	R PETRE	GSFC	H B OGELMAN	NAG 5 1893	547
11	UNIV OF WISCONSIN - MADISON	R PETRE	GSFC	J P CASSINELLI	NAG 5 1841	547
11	UNIV OF WISCONSIN - MADISON	R V STACHNIK	HQ	C L JOSEPH	NAGW 4273	552
11	UNIV OF WISCONSIN - MADISON	S SOBIESKI	GSFC	R C BLESS	NAG 5 1613	547
11	UNIV OF WISCONSIN - MADISON	T MORGAN	GSFC	F SCHERB	NAG 5 6787	549
11	UNIV OF WISCONSIN - MADISON	T MORGAN	GSFC	L A SROMOVSKY	NAG 5 6788	549
11	UNIV OF WYOMING	D K WEST	GSFC	S B HOWELL	NAG 5 4233	555
11	UNIV OF WYOMING	D K WEST	GSFC	S B HOWELL	NAG 5 4864	555
11	UNIV OF WYOMING	H SMITH	GSFC	D HOWELL	NAG 5 6492	555
11	UNIV OF WYOMING	J BERGSTRALH	GSFC	D R HOWELL	NAG 5 3935	555
11	UNIV OF WYOMING	J D BREGMAN	ARC	C E WOODWARD	NGT 2 52218	556
11	UNIV OF WYOMING	R J OLIVERSEN	GSFC	S B HOWELL	NAG 5 7036	555
11	UNIV OF WYOMING	R POLIDAN	GSFC	S R HOWELL	NAG 5 6735	555
11	UTAH STATE UNIV	G SCHWEMMER	GSFC	T D WILKERSON	NCC 5 219	505
11	UTAH STATE UNIV	J BOYCE	GSFC	B G FEJER	NAG 5 8638	504
11	UTAH STATE UNIV	J M GREBOWSKY	GSFC	R W SCHUNK	NAG 5 8227	504
11	UTAH STATE UNIV	M MELLOTT	GSFC	J DODD	NAG 5 6792	504
11	VA POLYTECH INST & ST UNIV	J BOYCE	HQ	R J BODNAR	NAG 5 8343	530
11	VALDOSTA STATE UNIV	W B BALL	LARC	K L RUMSTAY	NAG 5 3468	198
11	VALPARISO UNIV	D WEST	GSFC	B J HRIVNAK	NAG 5 2645	230
11	VALPARISO UNIV	D WEST	GSFC	B J HRIVNAK	NAG 5 3346	230

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	VALPARISO UNIV	J B MCGUILLEN	GRC	B J HRIVNAK	NAG 5 1223	230
11	VANDERBILT UNIV	D NAVA	GSFC	D A WEINTRAUB	NAG 5 4291	469
11	VANDERBILT UNIV	D NAVA	GSFC	D A WEINTRAUB	NAG 5 4428	470
11	VANDERBILT UNIV	J BOYCE	HQ	D A WEINTRAUB	NAG 5 8295	470
11	VANDERBILT UNIV	R HOFFMAN	GSFC	R CHAPPELL	NAG 5 8618	470
11	VILLANOVA UNIV	D K WEST	GSFC	E FITZPATRICK	NAG 5 7113	455
11	VILLANOVA UNIV	D K WEST	GSFC	E M SION	NAG 5 8388	455
11	VILLANOVA UNIV	D WEST	GSFC	E F GUINAN	NAG 5 2160	454
11	VILLANOVA UNIV	D WEST	GSFC	J SIAH	NAG 5 2462	455
11	VILLANOVA UNIV	D WEST	GSFC	SION	NAG 5 3221	455
11	VILLANOVA UNIV	D WEST	GSFC	U SU FIA	NAG 5 3539	455
11	VILLANOVA UNIV	N E WHITE	GSFC	E GUINAN	NAG 5 2707	455
11	VILLANOVA UNIV	R OLIVERSEN	GSFC	C W AMBRUSTER	NAG 5 2279	454
11	VILLANOVA UNIV	R OLIVERSEN	GSFC	E F GUINAN	NAG 5 3136	455
11	VILLANOVA UNIV	R PETRE	GSFC	E F GUINAN	NAG 5 2494	455
11	VILLANOVA UNIV	R PETRE	GSFC	E GUINAN	NAG 5 4520	455
11	VILLANOVA UNIV	R POLIDAN	GSFC	U SOFIA	NAG 5 6849	455
11	VIRGINIA COMMONWEALTH UNIV	S L POOL	JSC	R C MERRELL	NCC 9 87	532
11	WASHINGTON STATE UNIV	H BRINTON	HQ	R HUDSON	NAGW 4636	543
11	WASHINGTON UNIV - ST	A NURRIDDI	GSFC	K KELTON	NGT 5 50030	341
11	WASHINGTON UNIV - ST	B CAMPBELL	GSFC	L HASKIN	NAG 5 7140	339
11	WASHINGTON UNIV - ST	D NAVA	GSFC	D A POSODEK	NAG 5 4820	338
11	WASHINGTON UNIV - ST	J BOYCE	GSFC	D B MCKINNON	NAG 5 4325	338
11	WASHINGTON UNIV - ST	J BOYCE	GSFC	D FEGLEY	NAG 5 4323	338
11	WASHINGTON UNIV - ST	J BOYCE	GSFC	J T GLEAVES	NAG 5 8717	340
11	WASHINGTON UNIV - ST	J BOYCE	GSFC	R L KOROTEV	NAG 5 8609	340
11	WASHINGTON UNIV - ST	J BOYCE	GSFC	R M WALKER	NAG 5 8729	340
11	WASHINGTON UNIV - ST	J BOYCE	HQ	D A PODOSEK	NAG 5 4098	338
11	WASHINGTON UNIV - ST	J BOYCE	HQ	D WALKER	NAG 5 6291	339
11	WASHINGTON UNIV - ST	J BOYCE	HQ	F PODOSEK	NAG 5 7149	339
11	WASHINGTON UNIV - ST	J BOYCE	HQ	T J BERNATOWICZ	NAG 5 8336	340
11	WASHINGTON UNIV - ST	J P NORRIS	GSFC	J H BUCKLEY	NAG 5 6865	339
11	WASHINGTON UNIV - ST	M CHRISTI	MSFC	P L HINK	NCC 8 154	341
11	WASHINGTON UNIV - ST	M MEYER	GSFC	E L SHOCK	NAG 5 7696	339
11	WASHINGTON UNIV - ST	R BEEBE	GSFC	W B MCKINNON	NAG 5 8056	339
11	WASHINGTON UNIV - ST	R V STACHNIK	HQ	C M WILL	NAGW 3874	340
11	WESLEYAN UNIV	D NAVA	GSFC	D HERBST	NAG 5 4821	153
11	WEST VIRGINIA UNIV	J LING	GSFC	E SCIME	NAG 5 6468	544
11	WEST VIRGINIA WEYSLEYAN COLLEGE	J A NUTH	GSFC	P A WITHEY	NCC 5 71	545
11	WESTERN KENTUCKY UNIV	J D ROSENDHAL	GSFC	C H MCGRUDER	NAG 5 8762	241
11	WESTERN KENTUCKY UNIV	J P NORRIS	GSFC	M CARINI	NAG 5 7326	241
11	WESTERN KENTUCKY UNIV	J P NORRIS	GSFC	M T CARINI	NAG 5 8383	241
11	WHITMAN COLLEGE	D WEST	GSFC	U SOFIA	NAG 5 8249	543
11	WHITMAN COLLEGE	R POLIDAN	GSFC	U J SOFIA	NAG 5 8248	543
11	WICHITA STATE UNIV	D K WEST	GSFC	F ALLARD	NAG 5 3435	239
11	WITTENBERG UNIV	A F HEPP	GRC	J A GRIGSBY	NAG 5 3535	429
11	YALE UNIV	D K WEST	GSFC	C BAILYN	NAG 5 6404	154
11	YALE UNIV	D K WEST	GSFC	P COPPI	NAG 5 3686	153
11	YALE UNIV	D K WEST	GSFC	P COPPI	NAG 5 7074	154
11	YALE UNIV	D K WEST	GSFC	P F DEMARQUE	NAG 5 8406	154
11	YALE UNIV	G MUCKLOW	GSFC	R J SCHOELKOPF	NAG 5 8589	154
11	YALE UNIV	J NORRIS	GSFC	P COPPI	NAG 5 6691	154
11	YALE UNIV	J SWANK	GSFC	C D BAILYN	NAG 5 8434	154
11	YALE UNIV	J SWANK	GSFC	P S COPPI	NAG 5 7409	154
11	YALE UNIV	M MEYER	GSFC	R L DORIT	NAG 5 8813	154
12	ALABAMA A&M UNIV	A C BEAM	MSFC	K J CHANG	NAG 8 1172	1
12	CALIFORNIA INST OF TECH	A NURRIDDI	HQ	M OKUMURA	NGT 5 50200	51
12	CALIFORNIA INST OF TECH	D HOLLAND	GSFC	R A MEWALDT	NAG 5 3466	44
12	CALIFORNIA INST OF TECH	J BOYCE	GSFC	D J WASSERBURG	NAG 5 4076	44
12	CALIFORNIA INST OF TECH	J BOYCE	HQ	D J WASSERBURG	NAG 5 4083	45
12	CHARLES COUNTY COMM COLLEGE	J A NUTH	GSFC	G KRAUSE	NCC 5 400	249
12	CLEMSON UNIV - CLEMSON	D F NAVA	GSFC	D D CLAYTON	NAG 5 4329	460
12	CLEVELAND STATE UNIV	F I HURWITZ	GRC	J MASNOVI	NCC 3 376	413
12	CLEVELAND STATE UNIV	W MORLES	GRC	D W BALL	NCC 3 674	415
12	COLLEGE OF WILLIAM AND MARY	A K ST. CLAIR	LARC	R A ORWOLL	NCC 1 272	508
12	COLLEGE OF WILLIAM AND MARY	S A THIBEAULT	LARC	R L KIEFER	NCC 1 239	508

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
12	COLLEGE OF WILLIAM AND MARY	S A THIBEAULT	LARC	R L KIEFER	NCC 1 262	508
12	EMORY & HENRY COLLEGE	T L ST. CLAIR	LARC	P R YOUNG	NAG 1 1943	508
12	FLORIDA INST OF TECH	D LUECK	KSC	J C BAUM	NGT10 52604	172
12	GEORGIA SOUTHERN UNIV	B DONN	GSFC	R H NELSON	NAG 5 496	194
12	GEORGIA SOUTHERN UNIV	J ALLEN	GSFC	R NELSON	NCC 5 254	194
12	GRAMBLING STATE UNIV	M A MEADOR	GRC	D E HUBBARD	NCC 3 512	242
12	HAMPTON UNIV	T L ST. CLAIR	LARC	J C WILLIAMS	NAG 1 1941	510
12	HARVARD UNIV	D NAVA	HQ	M FRANKLIN	NAGW 4609	289
12	IOWA STATE UNIV	W M HUO	ARC	M S GORDON	NCC 2 5349	232
12	KENT STATE UNIV	A F HEPP	GRC	A CHOWDHURY	NCC 3 729	416
12	KENT STATE UNIV	A F HEPP	GRC	C VARCAS ABURTO	NCC 3 563	416
12	MANCHESTER COLLEGE	C HUNG	GRC	E G MILLER	NCC 3 317	225
12	MONTANA STATE UNIV	M MEYER	GSFC	M G WARD	NAG 5 3652	341
12	NORFOLK STATE UNIV	A F HEPP	GRC	S SUN	NAG 3 2289	514
12	NORFOLK STATE UNIV	P R YOUNG	LARC	L MATTIX	NAG 1 1453	514
12	NORTH CAROLINA A&T STATE UNIV	B PENN	MSFC	A P KENNEDY	NAG 8 1396	401
12	OLD DOMINION UNIV	B J JENSEN	LARC	J B COOPER	NAG 1 1989	516
12	OLD DOMINION UNIV	B J JENSEN	LARC	K L WISE	NGT 1 52124	519
12	OLD DOMINION UNIV	H NEEDLEMAN	GSFC	A PIERCE	NAG 5 5131	518
12	PENN STATE UNIV	J M STOLTZFUS	JSC	K K KUO	NAG 9 1143	448
12	PRAIRIE VIEW A&M UNIV	M A MEADOR	GRC	L E CARSON-ISABELLE	NCC 3 577	474
12	PRINCETON UNIV	D NOENER	MSFC	D SAVILLE	NAG 8 1368	358
12	RENSSELAER POLYTECH INST	D LARKIN	GRC	L V INTERRANTE	NAG 3 1856	388
12	RICE UNIV	G K HORIUCHI	JSC	R C SMALLEY	NCC 9 77	477
12	RICE UNIV	S FARMER	GRC	A R BARRON	NAS 3 97017	476
12	ROCHESTER INST OF TECH	A F HEPP	GRC	R RAFFAELLE	NCC 3 710	389
12	RUTGERS STATE UNIV - PISCATAWAY	N J JOHNSON	LARC	M JAFFE	NAG 1 2182	360
12	RUTGERS STATE UNIV - PISCATAWAY	N WHITE	GSFC	J HUGHES	NAG 5 6419	361
12	RUTGERS STATE UNIV OF NJ COOK CAMPUS	N WHITE	GSFC	J HUGHES	NAG 5 4871	362
12	SAN FRANCISCO STATE UNIV	T L ROUSH	ARC	J B ORENBERG	NCC 2 5324	57
12	SAN JOSE STATE UNIV	D KOIRO	ARC	J F BECKER	NCC 2 5234	59
12	SOUTHWEST TEXAS STATE UNIV	A K ST CLAIR	LARC	P E CASSIDY	NAG 1 631	478
12	SOUTHWEST TEXAS STATE UNIV	A K ST. CLAIR	LARC	P E CASSIDY	NCC 1 269	478
12	SOUTHWEST TEXAS STATE UNIV	A K ST. CLAIR	LARC	P E CASSIDY	NCC 1 324	478
12	SPELMAN COLLEGE	B G PENN	MSFC	B H CARDELINO	NCC 8 71	197
12	SPELMAN COLLEGE	Y R HICKS	GRC	P C CHEN	NAG 3 1974	196
12	STANFORD UNIV	T R GOVINDAN	ARC	H DAI	NCC 2 5270	68
12	TEXAS SOUTHERN UNIV	C B AGEE	JSC	B L WILSON	NCC 9 80	483
12	THE CATHOLIC UNIV OF AMERICA	L J STIEF	GSFC	D J BOGAN	NCC 5 178	166
12	THE CATHOLIC UNIV OF AMERICA	L J STIEF	GSFC	F L NESBITT	NCC 5 68	165
12	THE UNIV OF CENTRAL FLORIDA	R WERLINK	KSC	M F SIEMER	NGT10 52606	177
12	TUSKEGEE UNIV	B DELIWALA	KSC	K HAILE	NAG10 176	5
12	TUSKEGEE UNIV	K THOMPSON	KSC	N VAHDAT	NAG10 125	5
12	UNIV HOUSTON-HOUSTON	A NURRIDIN	HQ	G E FOX	NGT 5 50182	486
12	UNIV OF MINN	H C NEDDELEMAN	GSFC	C J WADDINGTON	NAG 5 5113	328
12	UNIV OF AKRON	P M HERGENROTHER	LARC	F W HARRIS	NAG 1 448	422
12	UNIV OF AKRON	P M HERGENROTHER	LARC	F W HARRIS	NAG 1 2067	422
12	UNIV OF ALABAMA - HUNTSVILLE	D K RUSSELL	HQ	P C RICHARDS	NGT 70390	17
12	UNIV OF ALABAMA - HUNTSVILLE	J CAMPBELL	MSFC	L SMALLEY	NAG 8 1403	15
12	UNIV OF ARIZONA	J BOYCE	HQ	D J DRAKE	NAG 5 4084	32
12	UNIV OF ARKANSAS - LITTLE ROCK	C BRYAN	KSC	T VISWANATHAN	NAG10 181	42
12	UNIV OF CALIFORNIA - BERKELEY	D HOLLAND	HQ	R J SAYKALLY	NGT 51378	82
12	UNIV OF CALIFORNIA - BERKELEY	J F BOYCE	GSFC	D NISHIZUMI	NAG 5 4992	75
12	UNIV OF CALIFORNIA - BERKELEY	R F PFAFF, JR.	GSFC	C W CARLSON	NAG 5 3596	73
12	UNIV OF CALIFORNIA - IRVINE	D HUBBARD	MSFC	P TABOREK	NAG 8 1437	90
12	UNIV OF CALIFORNIA - LOS ANGELES	D F NAVA	GSFC	D T WASSON	NAG 5 4331	94
12	UNIV OF CALIFORNIA - LOS ANGELES	J BOYCE	GSFC	D H WARREN	NAG 5 4215	94
12	UNIV OF CALIFORNIA - SAN DIEGO	D CHANG	ARC	D FOMENKOVA	NCC 2 5191	112
12	UNIV OF CALIFORNIA - SAN DIEGO	J BOYCE	HQ	R LUGMAIR	NAG 5 4145	105
12	UNIV OF CALIFORNIA - SAN FRANCISCO	M H NEW	ARC	M A WILSON	NCC 2 1126	114
12	UNIV OF CALIFORNIA - SAN FRANCISCO	M L FONDA	ARC	M A WILSON	NCC 2 772	114
12	UNIV OF CALIFORNIA - SAN FRANCISCO	R L JAFFE	ARC	M A WILSON	NCC 2 5294	114
12	UNIV OF CALIFORNIA - SANTA CRUZ	A POHORILLE	ARC	A KANAVARIOTI	NCC 2 5309	122
12	UNIV OF CALIFORNIA - SANTA CRUZ	M L FONDA	ARC	A KANAVARIOTI	NCC 2 534	121
12	UNIV OF CALIFORNIA - SANTA CRUZ	R PETRE	GSFC	A ZABLUDOFF	NAG 5 4866	120
12	UNIV OF CHICAGO	J BOYCE	GSFC	D N CLAYTON	NAG 5 3986	212

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
12	UNIV OF CHICAGO	J ZWIENER	MSFC	T K MINTON	NGT 8 52838	216
12	UNIV OF COLORADO - BOULDER	J SWANK	GSFC	J LINSKY	NAG 5 3383	133
12	UNIV OF FLORIDA	B T UPCHURCH	LARC	K S SCHANZE	NAG 1 1809	178
12	UNIV OF FLORIDA	B T UPCHURCH	LARC	K S SCHANZE	NAG 1 2161	178
12	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	D KEIL	NAG 5 4212	200
12	UNIV OF HAWAII AT MANOA - HONOLULU	J D RUMMEL	HQ	T C OWEN	NAGW 2631	204
12	UNIV OF IOWA	B GUYNES	MSFC	J M WIENCEK	NAG 8 1386	235
12	UNIV OF MISSOURI - SAINT LOUIS	J A HINKLEY	LARC	W J WELSH	NAG 1 1656	337
12	UNIV OF NEW MEXICO-ALBUQUERQUE	J BOYCE	GSFC	D J PAPIKE	NAG 5 4253	367
12	UNIV OF NEW ORLEANS	W B ALSTON	GRC	J P DROSKE	NAG 3 1906	246
12	UNIV OF PUERTO RICO - MAYAGUEZ	B PENN	MSFC	A LEYDERMAN	NCC 8 37	557
12	UNIV OF TOLEDO	K P KUNDU	GRC	K J DEWITT	NCC 3 513	428
12	UNIV OF TOLEDO	M L PUSEY	MSFC	A NADARAJAH	NCC 8 134	429
12	UNIV OF UTAH	J A HINKLEY	LARC	D SMITH	NAG 1 1984	501
12	UNIV OF VIRGINIA	J A HINKLEY	LARC	B L FARMER	NGT 1 52100	526
12	UNIV OF WASHINGTON	J H BELL	ARC	M P GOUTERMAN	NAG 2 1157	533
12	UNIV OF WISCONSIN - MADISON	R PETRE	GSFC	R MATHIEU	NAG 5 2915	548
12	VA POLYTECH INST & ST UNIV	D M STOAKLEY	LARC	L T TAYLOR	NAG 1 1973	528
12	VIRGINIA COMMONWEALTH UNIV	P M DOTY	MSFC	M S EL-SHALL	NAG 8 1484	531
12	WASHINGTON UNIV - ST	G MUCKLOW	GSFC	D LEOPOLD	NAG 5 8536	340
12	WASHINGTON UNIV - ST	J BOYCE	GSFC	D A HASKIN	NAG 5 4172	338
12	WASHINGTON UNIV - ST	J BOYCE	GSFC	D HOHENBERG	NAG 5 4173	338
12	WASHINGTON UNIV - ST	J BOYCE	GSFC	D M WALKER	NAG 5 4493	338
12	WASHINGTON UNIV - ST	T Y MILLER	MSFC	M R WARDELL	NAG 8 1241	340
12	WESTERN KENTUCKY UNIV	F J MONTEGANI	GRC	W PAN	NGT 3 52353	242
12	WOODS HOLE OCEANOGRAPHIC INST	D HOLLAND	GSFC	G E RAVIZZA	NAG 5 3752	311
12	XAVIER UNIV - LOUISIANA	M MATEU	GSFC	E E EDUOK	NAG 5 3512	247
13	ALABAMA A&M UNIV	A CHOW	MSFC	K HE	NAG 8 1335	1
13	ALABAMA A&M UNIV	B G PENN	MSFC	N KUKHTAREV	NAG 8 1620	2
13	ALABAMA A&M UNIV	B PENN	MSFC	S SARKISOV	NAG 8 1498	1
13	ALABAMA A&M UNIV	D FRAZIER	MSFC	M D AGGARWAL	NAG 8 1390	1
13	ALABAMA A&M UNIV	D FRAZIER	MSFC	P B LAI	NGT 8 52811	2
13	ALABAMA A&M UNIV	D PIERSON	JSC	M TADROS	NAG 9 1095	2
13	ALABAMA A&M UNIV	G ADAMOVSKY	GRC	D CURLEY	NCC 3 736	2
13	ALABAMA A&M UNIV	G ADAMOVSKY	GRC	P VENKATESWARLY	NAG 3 1956	1
13	ALABAMA A&M UNIV	W J LOVE	MSFC	B R REDDY	NAG 8 1125	1
13	ARIZONA STATE UNIV	M MEYYAPPAN	ARC	Y H ZHANG	NCC 2 5331	27
13	ARIZONA STATE UNIV	S SAINI	ARC	Y H ZHANG	NCC 2 5267	26
13	BETHUNE - COOKMAN COLLEGE	S E HETHERINGTON	GSFC	E F EKPO	NCC 5 426	167
13	BIRMINGHAM SOUTHERN COLLEGE	J F DOWDY	MSFC	K B BACHMANN	NAG 8 1280	4
13	BOSTON COLLEGE	N P BARNES	LARC	B DIBARTOIO	NAG 1 2057	280
13	BOSTON COLLEGE	P BROCKMAN	LARC	B DIBARTOLO	NAG 1 955	280
13	BOSTON COLLEGE	W J WAGNER	GSFC	D F WEBB	NAG 5 4946	280
13	BOSTON UNIV	J BOHLIN	GSFC	D SPENCE	NAG 5 6126	282
13	BOSTON UNIV	J C BARNES	LARC	K P HARLING	NGT 1 52199	284
13	BOSTON UNIV	J GREBOWSKY	GSFC	D E SPENCE	NAG 5 4682	282
13	BOSTON UNIV	J GREBOWSKY	GSFC	D HUGHES	NAG 5 4660	281
13	BOSTON UNIV	J GREBOWSKY	GSFC	D L SISCOE	NAG 5 4247	281
13	BOSTON UNIV	J GREBOWSKY	GSFC	D MENDILLO	NAG 5 4246	281
13	BOSTON UNIV	J GREBOWSKY	GSFC	G L SISCOE	NAG 5 8135	283
13	BOSTON UNIV	M H ACUNA	GSFC	H E SPENCE	NAG 5 8039	283
13	BOSTON UNIV	M H ACUNA	GSFC	J CHEN	NAG 5 7841	283
13	BOSTON UNIV	M H ACUNA	GSFC	T A FRITZ	NAG 5 2578	280
13	BOSTON UNIV	M L GOLDSTEIN	GSFC	T A FRITZ	NAG 5 2266	280
13	BOSTON UNIV	M M MELLOTT	GSFC	D E SPENCE	NAG 5 4273	281
13	BOSTON UNIV	M M MELLOTT	GSFC	D MENDILLO	NAG 5 4707	282
13	BOSTON UNIV	M MELLOTT	GSFC	M OPPENHEIM	NAG 5 7452	283
13	BOSTON UNIV	N R HALL	GRC	R G HOLT	NAG 3 2143	280
13	BOSTON UNIV	R B ROGERS	GRC	R G HOLT	NAG 3 2121	280
13	BOSTON UNIV	R H PLESS	GSFC	S CHAKRABARTI	NAG 5 690	280
13	BOSTON UNIV	R HOWARD	GSFC	D E SPENCE	NAG 5 3748	281
13	BOSTON UNIV	W JOHNSON	GSFC	S CHAKRABARTI	NAG 5 5137	282
13	BROWN UNIV	B FLOWERS	GSFC	G SEIDEL	NAG 5 5133	457
13	BROWN UNIV	B S SINGH	GRC	D ELBAUM	NAG 3 1929	456
13	BROWN UNIV	B S SINGH	GRC	G M SEIDEL	NAG 3 1927	456
13	CALIFORNIA INST OF TECH	A NURRIDIN	GSFC	F A HARRISON	NGT 5 50006	50

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
13	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	E C STONE	NAG 5 5216	46
13	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	E C STONE	NAG 5 5227	46
13	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	E C STONE	NAG 5 5228	47
13	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	R A MEWALDT	NAG 5 5166	46
13	CALIFORNIA INST OF TECH	B S SINGH	GRC	N YEH	NAG 3 1899	43
13	CALIFORNIA INST OF TECH	F C GILLET	HQ	H ZIRIN	NAGW 1972	49
13	CALIFORNIA INST OF TECH	G MUCKLOW	GSFC	F A HARRISON	NAG 5 8535	49
13	CALIFORNIA INST OF TECH	H C NEDDELMAN	GSFC	R A MEWALDT	NAG 5 5067	46
13	CALIFORNIA INST OF TECH	W J WAGNER	HQ	G J HURFORD	NAGW 3994	49
13	CALIFORNIA STATE UNIV - LONG BEACH	K HSIEH	GRC	J LIU	NAG 3 1830	52
13	CARNEGIE - MELLON UNIV	R B ROGERS	GRC	P J SIDES	NAG 3 2159	437
13	CARNEGIE - MELLON UNIV	R SKARDA	GRC	S GAROFF	NCC 3 465	439
13	CASE WESTERN RESERVE UNIV	A CHAIT	GRC	P L TAYLOR	NCC 3 554	411
13	CASE WESTERN RESERVE UNIV	A CHIT	GRC	P L TAYLOR	NCC 3 587	411
13	CASE WESTERN RESERVE UNIV	C R TALLEY	MSFC	C ROSENBLATT	NAG 8 1270	410
13	CASE WESTERN RESERVE UNIV	J BRUNSON	MSFC	D H MATTHIESEN	NCC 8 152	412
13	CENTRAL CONNECTICUT STATE UNIV	F SCHMIDLIN	GSFC	N C PARIKH	NAG 5 5246	151
13	CHRISTOPHER NEWPORT UNIV	J L SHINN	LARC	C K CHANG	NCC 1 178	507
13	CHRISTOPHER NEWPORT UNIV	R C SINGLETERRY, JR.	LARC	C K CHANG	NCC 1 277	507
13	CITY UNIV OF NY CITY COLLEGE	B L WHITE	HQ	R ALFANO	NAGW 4098	370
13	CITY UNIV OF NY CITY COLLEGE	B S SINGH	GRC	C MALDARELLI	NAG 3 2167	370
13	CITY UNIV OF NY CITY COLLEGE	B SINGH	GRC	J KOPLIK	NAG 3 1836	370
13	CLARK ATLANTA UNIV	A TEMKIN	GSFC	A MSEZANE	NAG 5 8792	187
13	CLARK ATLANTA UNIV	R ROOD	GSFC	D STEPHENSON-HAWK	NAG 5 6169	187
13	CLEMSON UNIV - CLEMSON	H C SHAW	GSFC	P J MCNULTY	NAG 5 8763	461
13	CLEMSON UNIV - CLEMSON	J BOHLIN	HQ	D L HYSSELL	NAGW 4546	461
13	CLEMSON UNIV - CLEMSON	L W GURKIN	GSFC	M F LARSEN	NAG 5 5085	460
13	CLEMSON UNIV - CLEMSON	M MELLOTT	GSFC	M P HICKEY	NAG 5 7592	460
13	CLEMSON UNIV - CLEMSON	R H PLESS	GSFC	M F LARSEN	NAG 5 5034	460
13	CLEMSON UNIV - CLEMSON	W B JOHNSON	GSFC	M F LARSEN	NAG 5 5186	460
13	CLEMSON UNIV - CLEMSON	W B JOHNSON	GSFC	M F LARSEN	NAG 5 5242	460
13	CLEVELAND STATE UNIV	A CHAIT	GRC	J A LOCK	NCC 3 521	414
13	CLEVELAND STATE UNIV	C R MERCER	GRC	J LOCK	NAG 3 2232	413
13	CLEVELAND STATE UNIV	S K RUTLEDGE	GRC	P D HAMBOURGER	NCC 3 522	414
13	COLLEGE OF WILLIAM AND MARY	E I MADARAS	LARC	P HINDERS	NGT 1 52127	508
13	COLLEGE OF WILLIAM AND MARY	M A SMITH	LARC	D C BENNER	NCC 1 80	508
13	COLLEGE OF WILLIAM AND MARY	P H JOHNSTON	LARC	J S BOGHOSIAN	NGT 1 52180	508
13	COLLEGE OF WOOSTER	J W POE	MSFC	D T JACOBS	NAG 8 1433	415
13	COLORADO STATE UNIV	V K RAWLIN	GRC	P J WILBUR	NAG 3 1801	127
13	COLUMBIA UNIV	A NURRIDIN	HQ	M KAMIONKOWSKI	NGT 5 50184	379
13	COLUMBIA UNIV	B J FLOWERS	GSFC	S M KAHN	NAG 5 5123	375
13	COLUMBIA UNIV	F BLIVEN	GSFC	P SCHOSSER	NAG 5 5247	375
13	COLUMBIA UNIV	H C NEEDLEMAN	GSFC	E APRILE	NAG 5 5108	374
13	COLUMBIA UNIV	H NEEDLEMAN	GSFC	C HAILEY	NAG 5 5129	375
13	COLUMBIA UNIV	H NEEDLEMAN	GSFC	C HALLEY	NAG 5 5119	374
13	COLUMBIA UNIV	J SWANK	GSFC	C HASWELL	NAG 5 3311	373
13	COLUMBIA UNIV	L J EARLY	GSFC	R NOVICK	NAG 5 618	372
13	COLUMBIA UNIV	N WHITE	GSFC	S KAHN	NAG 5 3621	373
13	COLUMBIA UNIV	S NELSON	GSFC	C J HAILEY	NAS 5 98035	377
13	CORNELL UNIV	J W POE	MSFC	D M LEE	NAG 8 1445	384
13	CORNELL UNIV	L W GURKIN	GSFC	M C KELLEY	NAG 5 5080	381
13	CORNELL UNIV	M M MELLOTT	GSFC	D E SEYLER	NAG 5 4464	381
13	CORNELL UNIV	P F PENKO	GRC	I D BOYD	NAG 3 1451	379
13	CORNELL UNIV	R H PLESS	GSFC	C A TEPLY	NAG 5 5045	381
13	CORNELL UNIV	R H PLESS	GSFC	M C KELLEY	NAG 5 5036	381
13	CORNELL UNIV	R H PLESS	GSFC	M C KELLEY	NAG 5 5038	381
13	CORNELL UNIV	W B JOHNSON	GSFC	M C KELLEY	NAG 5 5244	381
13	CORNELL UNIV	W B JOHNSON	GSFC	P KINTNER	NAG 5 5079	381
13	CORNELL UNIV	W B JOHNSON	MSFC	P M KINTNER	NAG 5 5233	381
13	CORNELL UNIV	W JOHNSON	GSFC	P KINTNER	NAG 5 5134	381
13	CORNELL UNIV	W M SATTMAN	JSC	W M SALTZMAN	NAG 8 1372	383
13	DARTMOUTH COLLEGE	D EVANS	GSFC	D G LYON	NAG 5 4663	347
13	DARTMOUTH COLLEGE	J BOHLIN	GSFC	D O SONNERUP	NAG 5 6268	347
13	DARTMOUTH COLLEGE	J BOHLIN	GSFC	M HUDSON	NAG 5 6427	347
13	DARTMOUTH COLLEGE	J M GREBOWSKY	GSFC	W LOTKO	NAG 5 8441	348
13	DARTMOUTH COLLEGE	L J EARLY	GSFC	J W LABELLE	NAG 5 663	346

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
13	DARTMOUTH COLLEGE	M H ACUNA	GSFC	J G LYON	NAG 5 7802	348
13	DARTMOUTH COLLEGE	M H ACUNA	GSFC	W LOTKO	NAG 5 7803	348
13	DARTMOUTH COLLEGE	M M MELLOTT	GSFC	D LOTKO	NAG 5 4529	347
13	DARTMOUTH COLLEGE	M M MELLOTT	GSFC	D W LABELLE	NAG 5 4943	347
13	DARTMOUTH COLLEGE	S A CURTIS	GSFC	M K HUDSON	NAG 5 1098	346
13	DARTMOUTH COLLEGE	T J BIRMINGHAM	GSFC	W LOTKO	NAG 5 2252	346
13	DARTMOUTH COLLEGE	W B JOHNSON	GSFC	J W LABELLE	NAG 5 F238	347
13	DARTMOUTH COLLEGE	W B JOHNSON	GSFC	J W LABELLE	NAG 5 5239	347
13	DELAWARE STATE UNIV	W C EDWARDS	LARC	N MELIKECHI	NAG 1 2030	155
13	DUKE UNIV	B S SINGH	GRC	H MEYER	NAG 3 1838	397
13	EMBRY-RIDDLE AERONAUTICAL UNIV	W B JOHNSON	GSFC	P J ESPY	NAG 5 5199	167
13	FAYETTEVILLE STATE UNIV	F SIX	MSFC	J WU	NAG 8 996	400
13	FISK UNIV	D O FRAZIER	MSFC	E SILHERMAN	NCC 8 133	465
13	FISK UNIV	J SPAN	MSFC	E THOMAS	NAG 8 1538	465
13	FISK UNIV	N GEHRELS	GSFC	A BURGER	NCC 5 286	465
13	FISK UNIV	S G BAILEY	GRC	D O HENDERSON	NAG 3 1942	465
13	FLA INTERNATIONAL UNIV	J J HILLMAN	GSFC	J W SHELTON	NAG 5 2583	167
13	FLA INTERNATIONAL UNIV	R HARTLE	GSFC	K HARDY	NAG 5 8791	168
13	FLORIDA A&M UNIV	A TEMKIN	GSFC	B SAHA	NAG 5 6631	169
13	FLORIDA ATLANTIC UNIV	R LEE	KSC	W H HARTT	NAG10 193	171
13	FLORIDA INST OF TECH	J BOHLIN	GSFC	D B MOLDWIN	NAG 5 4897	171
13	FLORIDA STATE UNIV	B S SINGH	GRC	E MANOUSAKIS	NAG 3 1841	173
13	FLORIDA STATE UNIV	J S PREISSER	LARC	C W TAM	NAG 1 1776	172
13	GEORGE MASON UNIV	J GREBOWSKY	GSFC	D A FEDDER	NAG 5 4727	509
13	GEORGE MASON UNIV	J R FISCHER	GSFC	R LOHNER	NAG 5 2652	509
13	GEORGIA INST OF TECH	J L HOWELL	MSFC	J R OLDS	NAG 8 1547	191
13	GEORGIA SOUTHERN UNIV	F HORZ	JSC	W W ANDERSON	NAG 9 913	194
13	HAMPTON UNIV	E J PENCIL	GRC	D R LYONS	NAG 3 2059	511
13	HAMPTON UNIV	F J MONTEGANI	GRC	D R LYONS	NGT 3 52354	513
13	HAMPTON UNIV	G ADAMOVSKY	GRC	R LYONS	NAG 3 1720	511
13	HAMPTON UNIV	G T KIMBERLY	LARC	A C SMITH	NAG 1 1742	510
13	HAMPTON UNIV	J W WILSON	LARC	L J MORELL	NGT 1 52148	513
13	HAMPTON UNIV	R C SINGLETERRY	LARC	K M MAUNG	NCC 1 242	512
13	HAMPTON UNIV	R HATHAWAY	LARC	D A TEMPLE	NCC 1 251	513
13	HAMPTON UNIV	S R BULLOCK	GRC	D R LYONS	NAG 3 2034	511
13	HARVARD UNIV	B S SINGH	GRC	D WEITZ	NAG 3 2284	286
13	HARVARD UNIV	H C NEEDLEMAN	GSFC	J E GRINDLAY	NAG 5 5103	288
13	HARVARD UNIV	S J KATZBERG	LARC	M COSMO	NAG 1 1969	286
13	HENDRIX COLLEGE	B ST. CYR	SSC	R W DUNN	NAG13 98012	42
13	HOWARD UNIV	N D PILTCH	GRC	P MISRA	NAG 3 1677	160
13	HOWARD UNIV	W R HOEGY	GSFC	S T SMITH	NCC 5 387	162
13	INDIANA UNIV - BLOOMINGTON	B A MERRITT	GSFC	R E PEHL	NAG 5 5194	224
13	INDIANA UNIV - BLOOMINGTON	H C NEEDLEMAN	GSFC	J MUSSER	NAG 5 5058	224
13	JOHNS HOPKINS UNIV	B J FLOWERS	GSFC	P D FELDMAN	NAG 5 5122	252
13	JOHNS HOPKINS UNIV	C P HOLMES	GSFC	D M KRIMIGIS	NAG 5 4365	252
13	JOHNS HOPKINS UNIV	D EVANS	GSFC	D G SIBECK	NAG 5 4672	252
13	JOHNS HOPKINS UNIV	D EVANS	GSFC	D G SIBECK	NAG 5 4679	252
13	JOHNS HOPKINS UNIV	D K WEST	GSFC	D WING	NAG 5 4010	251
13	JOHNS HOPKINS UNIV	E C WHIPPLE	HQ	A Y LUI	NAGW 3449	258
13	JOHNS HOPKINS UNIV	E C WHIPPLE	HQ	B J ANDERSON	NAGW 4133	258
13	JOHNS HOPKINS UNIV	J BOHLIN	GSFC	D E ERLANDSON	NAG 5 4549	252
13	JOHNS HOPKINS UNIV	J BOHLIN	GSFC	D H MAUK	NAG 5 6182	253
13	JOHNS HOPKINS UNIV	J BOHLIN	GSFC	D OHTANI	NAG 5 4969	252
13	JOHNS HOPKINS UNIV	J BOHLIN	GSFC	D OHTANI	NAG 5 6178	253
13	JOHNS HOPKINS UNIV	J D BOHLIN	HQ	L GOEMBEL	NAGW 4660	258
13	JOHNS HOPKINS UNIV	J G GREBOWSKY	GSFC	D J ANDERSON	NAG 5 4664	252
13	JOHNS HOPKINS UNIV	J RAHE	HQ	J F APPLEBY	NAGW 4979	258
13	JOHNS HOPKINS UNIV	J WILLETT	GSFC	D B HOLLAND	NAG 5 3869	251
13	JOHNS HOPKINS UNIV	J WILLETT	GSFC	M TOSSMAN	NAG 5 6113	253
13	JOHNS HOPKINS UNIV	M H ACUNA	GSFC	D G SIBECK	NAG 5 8030	255
13	JOHNS HOPKINS UNIV	M H ACUNA	GSFC	N J FOX	NAG 5 8019	255
13	JOHNS HOPKINS UNIV	M H ACUNA	GSFC	P T NEWELL	NAG 5 8036	255
13	JOHNS HOPKINS UNIV	M H ACUNA	GSFC	R A GREENWALD	NAG 5 8037	255
13	JOHNS HOPKINS UNIV	M M MELLOTT	GSFC	G J ROMICK	NAG 5 8122	256
13	JOHNS HOPKINS UNIV	M M MELLOTT	GSFC	D T NEWELL	NAG 5 4525	252
13	JOHNS HOPKINS UNIV	M M MELLOTT	HQ	D G MITCHELL	NAGW 2583	257

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
13	JOHNS HOPKINS UNIV	M M MELLOTT	HQ	P T NEWELL	NAGW 4424	258
13	JOHNS HOPKINS UNIV	M MELLOTT	GSFC	B J ANDERSON	NAG 5 6050	253
13	JOHNS HOPKINS UNIV	M MELLOTT	GSFC	D MORRISON	NAG 5 8062	256
13	JOHNS HOPKINS UNIV	M MELLOTT	GSFC	D YEE	NAG 5 6000	253
13	JOHNS HOPKINS UNIV	M MELLOTT	GSFC	F MORGAN	NAG 5 8061	255
13	JOHNS HOPKINS UNIV	M MELLOTT	HQ	R E ERLANDSON	NAGW 4055	258
13	JOHNS HOPKINS UNIV	R A HOFFMAN	GSFC	C MENG	NAG 5 3187	250
13	JOHNS HOPKINS UNIV	R A HOFFMAN	HQ	F C ROELOF	NAGW 4729	258
13	JOHNS HOPKINS UNIV	R HOWARD	GSFC	D G MITCHELL	NAG 5 3879	251
13	JOHNS HOPKINS UNIV	R HOWARD	GSFC	D H MAUK	NAG 5 4582	252
13	JOHNS HOPKINS UNIV	S A CURTIS	GSFC	R A GREENWALD	NAG 5 1099	250
13	JOHNS HOPKINS UNIV	TKOSTIUK	HQ	R MCNUTT	NAGW 4547	258
13	JOHNS HOPKINS UNIV	W B JOHNSON	GSFC	J H YEE	NAG 5 5198	253
13	JOHNS HOPKINS UNIV	W B JOHNSON	GSFC	J YEE	NAG 5 5082	252
13	JOHNS HOPKINS UNIV	W J WAGNER	GSFC	D M RUST	NAG 5 4955	252
13	JOHNS HOPKINS UNIV	W V JONES	HQ	R L MCNUTT	NAGW 4603	258
13	KENT STATE UNIV	G RYBICKI	GRC	C VARGAS-ABURTO	NAG 3 1726	416
13	LOMA LINDA UNIV	F A CUCINOTTA	JSC	G A NELSON	NCC 9 79	55
13	LOUISIANA STATE UNIV - BATON ROUGE	B A MERRITT	GSFC	M L CHERRY	NAG 5 5177	243
13	LOUISIANA STATE UNIV - BATON ROUGE	H NEEDLEMAN	GSFC	M CHERRY	NAG 5 5127	243
13	LOUISIANA STATE UNIV - BATON ROUGE	J WILLETT	GSFC	D G GUZIK	NAG 5 4154	243
13	LOUISIANA STATE UNIV - BATON ROUGE	R HOWARD	GSFC	D P WEFEL	NAG 5 3770	243
13	LOUISIANA STATE UNIV - BATON ROUGE	S SAINI	ARC	R KALIA	NAG 2 1212	242
13	MASSACHUSETTS INST OF TECH	B FLOWERS	GSFC	C R CANIZARES	NAG 5 5105	298
13	MASSACHUSETTS INST OF TECH	D GILMAN	HQ	G RICKER	NASW 4690	304
13	MASSACHUSETTS INST OF TECH	D HUBBARD	MSFC	W KETTERLE	NAG 8 1435	302
13	MASSACHUSETTS INST OF TECH	G FISHMAN	MSFC	J M KOMMERS	NGT 8 52816	307
13	MASSACHUSETTS INST OF TECH	H BRINTON	HQ	M T ZUBER	NAGW 5021	303
13	MASSACHUSETTS INST OF TECH	J D BOHLIN	GSFC	M I PAULARENA	NAG 5 4360	296
13	MASSACHUSETTS INST OF TECH	J MURPHY	GSFC	D RICKER	NAS 5 32929	304
13	MASSACHUSETTS INST OF TECH	M H ACUNA	GSFC	A J LAZARUS	NAG 5 8045	301
13	MASSACHUSETTS INST OF TECH	M KAPLAN	HQ	G R RICKER	NAGW 4763	303
13	MASSACHUSETTS INST OF TECH	M M HASAN	GRC	A A SONIN	NAG 3 1845	292
13	MASSACHUSETTS INST OF TECH	R KESSEL	GSFC	D LAZARUS	NCC 5 239	305
13	MASSACHUSETTS INST OF TECH	R PETRE	GSFC	W LEWIN	NAG 5 3206	294
13	MICHIGAN STATE UNIV	E CHENG	GSFC	E D LOH	NAG 5 3218	312
13	MIDDLEBURY COLLEGE	J D BOHLIN	HQ	R WOLFSON	NAGW 2141	505
13	MORGAN STATE UNIV	J CHITWOOD	GSFC	C WILLIAMS	NAG 5 8857	260
13	MORGAN STATE UNIV	J S CHITWOOD	GSFC	C WILLIAMS	NCC 5 204	260
13	MOUNT VERNON NAZARENE COLLEGE	M L TUMA	GRC	R W GRUNLKE	NAG 3 2156	416
13	NEW JERSEY INST OF TECH	A POLAND	GSFC	H WANG	NAG 5 7349	356
13	NEW JERSEY INST OF TECH	A POLAND	GSFC	H WANG	NAG 5 7350	356
13	NEW JERSEY INST OF TECH	W WAGNER	GSFC	D GARY	NAG 5 6381	355
13	NEW JERSEY INST OF TECH	W WAGNER	GSFC	D WANG	NAG 5 6055	355
13	NEW MEXICO STATE UNIV - LAS CRUCES	B A MERRITT	WSTF	S J STOCHAJ	NAG 5 5226	365
13	NEW MEXICO STATE UNIV - LAS CRUCES	H C NEEDLEMAN	GSFC	S J STOCHAJ	NAG 5 5060	365
13	NEW MEXICO STATE UNIV - LAS CRUCES	H C NEEDLEMAN	GSFC	S J STOCHAJ	NAG 5 5068	365
13	NEW MEXICO STATE UNIV - LAS CRUCES	H C NEEDLEMAN	GSFC	W P WEBBER	NAG 5 5073	365
13	NORFOLK STATE UNIV	N P BARNES	LARC	M NOGINOV	NAG 1 2172	514
13	NORTH CAROLINA STATE UNIV	J GREBOWSKY	GSFC	D C ELLISON	NAG 5 2254	403
13	NORTH CAROLINA STATE UNIV	J M GREBOWSKY	GSFC	D C ELLISON	NAG 5 8215	404
13	NORTH CAROLINA STATE UNIV	M S BURRELL	GSFC	S O REYNOLDS	NGT 5 65	405
13	NORTHWESTERN UNIV	A NURRIDIN	HQ	MILLER	NGT 5 50172	211
13	NORTHWESTERN UNIV	I L KRAINSKY	GRC	D NEWMAN	NAG 3 2231	209
13	NORTHWESTERN UNIV	L W GURKIN	GSFC	M P ULMER	NAG 5 5094	209
13	NORTHWESTERN UNIV	M S BURRELL	GSFC	G NOVAK	NGT 5 88	211
13	NORTHWESTERN UNIV	M WEISLOGEL	GRC	S LICHTER	NAG 3 1892	209
13	OHIO STATE UNIV	D HUBBARD	MSFC	T HO	NAG 8 1441	420
13	OHIO STATE UNIV	M J KURYLO	HQ	F C DE LUCIA	NAGW 2639	420
13	OHIO STATE UNIV	M MANTENIEKS	GRC	P J TURCHI	NAG 3 1764	417
13	OHIO STATE UNIV	P DOTY	MSFC	P K DUTTA	NAG 8 1267	420
13	OKLAHOMA STATE UNIV	B SINGH	GRC	O TONG	NAG 3 1852	430
13	OLD DOMINION UNIV	D I KAPLAN	JSC	L VUSKOVIC	NAG 9 956	518
13	OLD DOMINION UNIV	E V BROWELL	LARC	H ELSAYED-ALI	NAG 1 1578	515
13	OLD DOMINION UNIV	J S PREISSER	LARC	J TWEED	NAG 1 2118	517
13	OLD DOMINION UNIV	L W TOWNSEND	LARC	G S KHADELWAL	NCC 1 42	518

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
13	OLD DOMINION UNIV	R C SINGLETERRY	LARC	J H HEINBOCKEL	NCC 1 320	519
13	PENN STATE UNIV	B A MERRITT	GSFC	J J BEATTY	NAG 5 5220	445
13	PENN STATE UNIV	B A MERRITT	GSFC	S COUTU	NAG 5 5174	445
13	PENN STATE UNIV	H C NEEDLEMAN	GSFC	J J BEATTY	NAG 5 5065	444
13	PENN STATE UNIV	H TRINH	MSFC	W E ANDERSON	NAG 8 1398	448
13	PENN STATE UNIV	J S LING	GRC	J M TAZBELL	NAG 3 1871	443
13	RENN STATE UNIV	L J EARLY	GSFC	J D RUSSELL	NAG 5 5015	444
13	PENN STATE UNIV	M M MELLOTT	GSFC	D L CROSKEY	NAG 5 6197	445
13	PENN STATE UNIV	R H PLESS	GSFC	T J KANE	NAG 5 5035	444
13	PENN STATE UNIV	W B JOHNSON	GSFC	J D MITCHELL	NAG 5 5136	445
13	PENN STATE UNIV	W B JOHNSON	GSFC	J D MITCHELL	NAG 5 5169	445
13	PENN STATE UNIV	W GURKIN	GSFC	D BURROWS	NAG 5 5093	445
13	PRAIRIE VIEW A&M UNIV	C R MCCREIGHT	ARC	R T WILKINS	NAG 2 1154	473
13	PRAIRIE VIEW A&M UNIV	H NEEDLEMAN	GSFC	R WILKINS	NAG 5 5130	473
13	PRINCETON UNIV	M BURRELL	GSFC	J SARMIENTO	NGT 5 61	359
13	PRINCETON UNIV	W B JOHNSON	GSFC	E B JENKINS	NAG 5 616	357
13	PURDUE UNIV	J S LING	GRC	D A BASARAN	NAG 3 1860	226
13	RHODES COLLEGE	W V JONES	HQ	R M MACQUEEN	NAGW 4671	466
13	RICE UNIV	D EVANS	GSFC	D R TOFFOLETTO	NAG 5 4726	475
13	RICE UNIV	D HUBBARD	MSFC	R G HULET	NAG 8 1444	476
13	RICE UNIV	F CHANG-DIAZ	JSC	A A CHAN	NAG 9 978	476
13	RICE UNIV	G FISHMAN	MSFC	A W CRIPER	NGT 8 52814	477
13	RICE UNIV	J BOHLIN	GSFC	D A WOLF	NAG 5 4267	475
13	RICE UNIV	J GREBOWSKY	GSFC	D W HILL	NAG 5 4822	475
13	RICE UNIV	J GREBOWSKY	GSFC	R A WOLF	NAG 5 8136	476
13	RICE UNIV	M H ACUNA	GSFC	P A CLOUTIER	NAG 5 1195	474
13	RICE UNIV	M H ACUNA	GSFC	P A CLOUTIER	NAG 5 7037	475
13	RICE UNIV	M H ACUNA	GSFC	P A CLOUTIER	NAG 5 7041	475
13	RICE UNIV	M L GOLDSTEIN	GSFC	P H REIFF	NAG 5 2215	474
13	RICE UNIV	R A HOFFMAN	GSFC	P H REIFF	NAG 5 3216	475
13	RICE UNIV	T MOORE	MSFC	T W HILL	NGT 8 52834	477
13	ROANOKE COLLEGE	B A MERRITT	GSFC	C H TSAO	NAG 5 5165	520
13	ROANOKE COLLEGE	H NEEDLEMAN	GSFC	C TASCO	NAG 5 5053	520
13	SOUTH DAKOTA SCH OF MINES & TECH	I L KRAINSKY	GRC	A PETUKHOV	NAG 3 1680	464
13	SOUTHERN UNIV & A&M COLLEGE	A DOUGLAS	GSFC	C H YANG	NAG 5 3660	244
13	SOUTHERN UNIV & A&M COLLEGE	D SCHMIDT	MSFC	H L LAWRENCE	NAG 8 1495	245
13	SOUTHERN UNIV & A&M COLLEGE	G JERMAN	MSFC	D BAGAYOKO	NGT 5 90015	245
13	SOUTHERN UNIV & A&M COLLEGE	H C NEEDLEMAN	GSFC	A R FAZELY	NAG 5 5066	244
13	SOUTHERN UNIV & A&M COLLEGE	J TUELLER	GSFC	J STACY	NAG 5 7157	244
13	STANFORD UNIV	B S SINGH	GRC	E G SHAQTEH	NAG 3 1843	62
13	STANFORD UNIV	B S SINGH	GRC	J A LIPA	NAG 3 1902	63
13	STANFORD UNIV	B S SINGH	GRC	J A LIPA	NAG 3 1940	63
13	STANFORD UNIV	D D ROSS	GRC	D A RUFF	NAG 3 1887	62
13	STANFORD UNIV	D EVANS	GSFC	D S INAN	NAG 5 4554	64
13	STANFORD UNIV	D HUBBARD	MSFC	J A LIPA	NAG 8 1431	66
13	STANFORD UNIV	D HUBBARD	MSFC	J A LIPA	NAG 8 1436	66
13	STANFORD UNIV	D K RUSSELL	HQ	A WALKER	NGT 70364	69
13	STANFORD UNIV	H C NEEDLEMAN	GSFC	P F MICHELSON	NAG 5 5109	64
13	STANFORD UNIV	J M BOYCE	HQ	G TYLER	NAGW 4878	66
13	STANFORD UNIV	J W POE	MSFC	C W FRANCIS-EVERITT	NAG 8 1430	66
13	STANFORD UNIV	J W POE	MSFC	J A LIPA	NAG 8 1439	66
13	STANFORD UNIV	J WILLETT	GSFC	D S INAN	NAG 5 3637	63
13	STANFORD UNIV	M H ACUNA	GSFC	U S INAN	NAG 5 8040	65
13	STANFORD UNIV	M M MELLOTT	GSFC	D S INAN	NAG 5 6264	64
13	STANFORD UNIV	R S GEVEDEN	MSFC	C W EVERITT	NAS 8 39225	67
13	STANFORD UNIV	S P SHARMA	ARC	M A CAPPELLI	NAG 2 1259	62
13	STANFORD UNIV	T R GOVINDAN	ARC	K CHO	NCC 2 5350	69
13	STANFORD UNIV	W B JOHNSON	GSFC	A B WALKER	NAG 5 5200	64
13	STANFORD UNIV	W M HUO	ARC	C H KRUGER	NAG 2 1079	62
13	STANFORD UNIV	W WAGNER	GSFC	D A STURROCK	NAG 5 4038	64
13	STATE UNIV OF NY - STONY BROOK	C TALLEY	MSFC	M DUDLEY	NCC 8 93	394
13	STATE UNIV OF NY COL - PLATTSBURGH	E K GIBSON	JSC	G J FLYNN	NAG 9 1109	394
13	TAYLOR UNIV	W B JOHNSON	GSFC	H D VOSS	NAG 5 5184	229
13	TEL-AVIV UNIV	C R BARAONA	GRC	J APPLEBAUM	NAG 3 2063	559
13	TEXAS A&M UNIV	S D GLEN	JSC	R WILLIAMS	NAG 9 1070	481
13	TEXAS A&M UNIV-KINGSVILLE	D THOMPSON	GSFC	D SUSON	NAG 5 7159	483

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
13	TEXAS TECH UNIV	B A MERRITT	GSFC	R WIGMANS	NAG 5 5156	484
13	THE AMERICAN UNIV	J L BUFTON	GSFC	R B KAY	NCC 5 269	162
13	THE CATHOLIC UNIV OF AMERICA	G SOFFEN	GSFC	D CRENSHAW	NGT 5 89	166
13	THE CATHOLIC UNIV OF AMERICA	M STOUTSENBERGER	GSFC	D D BRUHWEILER	NGT 5 70000	166
13	THE CATHOLIC UNIV OF AMERICA	R P LEPPING	GSFC	Y C WHANG	NAG 5 2814	163
13	THE CATHOLIC UNIV OF AMERICA	W J WAGNER	GSFC	D GUHATHAKURTA	NAG 5 4940	164
13	THE CATHOLIC UNIV OF AMERICA	W J WAGNER	GSFC	D GUHATHAKURTA	NAG 5 6260	164
13	THE UNIV OF CENTRAL FLORIDA	A F HEPP	GRC	N G DHERE	NCC 3 712	177
13	TUFTS UNIV	W G WAGNER	GSFC	P R LANG	NAG 5 6269	307
13	TUFTS UNIV	W J WAGNER	GSFC	P R LANG	NAG 5 4972	307
13	TUSKEGEE UNIV	M MANTENEIKS	GRC	P K RAY	NAG 3 2037	5
13	UNIV HOUSTON-HOUSTON	E BERING	GSFC	E BERING	NAG 5 5126	484
13	UNIV HOUSTON-HOUSTON	G BADHWAR	JSC	L PINSKY	NAG 9 803	485
13	UNIV OF MINN	A NURRIDDIN	HQ	J W HALLEY	NGT 5 50208	331
13	UNIV OF MINN	A NURRIDDIN	HQ	R L LYSAK	NGT 5 50186	331
13	UNIV OF MINN	B A MERRITT	GSFC	T W JONES	NAG 5 5182	328
13	UNIV OF MINN	C TALLEY	MSFC	J J DERBY	NAG 8 1474	329
13	UNIV OF MINN	D PIERCE	GSFC	J WYGANT	NAG 5 5214	328
13	UNIV OF MINN	L J EARLY	GSFC	J R WINCKLER	NSG 5088	331
13	UNIV OF MINN	M H ACUNA	GSFC	C A CATTELL	NAG 5 8073	329
13	UNIV OF MINN	M M MELLOTT	GSFC	D L LYSAK	NAG 5 4466	327
13	UNIV OF MINN	R A HOFFMAN	GSFC	C CATTELL	NAG 5 3217	327
13	UNIV OF MINN	R HOWARD	GSFC	D A CATTELL	NAG 5 3735	327
13	UNIV OF MINN	W B JOHNSON	GSFC	J R WYGANT	NAG 5 5172	328
13	UNIV OF MINN	W B JOHNSON	GSFC	P J KELLOGG	NAG 5 5048	327
13	UNIV OF ALABAMA - BIRMINGHAM	J F DOWDY	MSFC	C M LAWSON	NGT 8 52845	7
13	UNIV OF ALABAMA - BIRMINGHAM	R KING	MSFC	J B ANDREWS	NAS 8 99059	7
13	UNIV OF ALABAMA - HUNTSVILLE	A NURRIDDIN	HQ	E EMSLIE	NGT 5 50163	17
13	UNIV OF ALABAMA - HUNTSVILLE	F SIX	MSFC	J L HORWITZ	NGT 51400	17
13	UNIV OF ALABAMA - HUNTSVILLE	H C NEEDLEMAN	GSFC	G N PENDLETON	NAG 5 5112	10
13	UNIV OF ALABAMA - HUNTSVILLE	J BOHLIN	GSFC	D H COMFORT	NAG 5 4268	9
13	UNIV OF ALABAMA - HUNTSVILLE	J BOHLIN	GSFC	D SINGH	NAG 5 4893	10
13	UNIV OF ALABAMA - HUNTSVILLE	J D BOHLIN	HQ	N SINGH	NAGW 4470	16
13	UNIV OF ALABAMA - HUNTSVILLE	J F DOWDY	MSFC	J V PARADIJS	NGT 8 52863	18
13	UNIV OF ALABAMA - HUNTSVILLE	J R PRUITT	MSFC	J L HORWITZ	NGT 8 52833	18
13	UNIV OF ALABAMA - HUNTSVILLE	J T HOWELL	MSFC	N LI	NAG 8 1308	14
13	UNIV OF ALABAMA - HUNTSVILLE	M H ACUNA	GSFC	R SHELTON	NAG 5 7979	12
13	UNIV OF ALABAMA - HUNTSVILLE	M L GOLDETEIN	GSFC	J A MILLER	NAG 5 3551	8
13	UNIV OF ALABAMA - HUNTSVILLE	M M MELLOTT	GSFC	D P HICKEY	NAG 5 4762	9
13	UNIV OF ALABAMA - HUNTSVILLE	M M MELLOTT	GSFC	D SINGH	NAG 5 4604	9
13	UNIV OF ALABAMA - HUNTSVILLE	U URBAN	MSFC	S T WU	NCC 8 65	16
13	UNIV OF ALABAMA - HUNTSVILLE	W B ROSSOW	GSFC	Q HAN	NAG 5 8646	14
13	UNIV OF ALABAMA - HUNTSVILLE	W J WAGNER	GSFC	D EMSLIE	NAG 5 4027	9
13	UNIV OF ALABAMA - HUNTSVILLE	W J WAGNER	GSFC	P A MILLER	NAG 5 4951	10
13	UNIV OF ALABAMA - HUNTSVILLE	W J WAGNER	HQ	A G EMSLIE	NAGW 3617	15
13	UNIV OF ALABAMA - HUNTSVILLE	W J WAGNER	HQ	J A MILLER	NAGW 5082	16
13	UNIV OF ALABAMA - HUNTSVILLE	W V JONES	HQ	J A MILLER	NAGW 4378	15
13	UNIV OF ALABAMA - HUNTSVILLE	W WAGNER	GSFC	D EMSLIE	NAG 5 6123	10
13	UNIV OF ALABAMA - UNIV	M MELLOTT	GSFC	D RICHARD	NAG 5 6053	19
13	UNIV OF ALABAMA - UNIV	W T POWERS	MSFC	K W WHITAKER	NAG 8 279	19
13	UNIV OF ALABAMA - UNIV	W WAGNER	GSFC	D WU	NAG 5 6174	19
13	UNIV OF ALASKA - FAIRBANKS	A NURRIDDIN	HQ	D LUMMERZHEIM	NGT 5 50191	23
13	UNIV OF ALASKA - FAIRBANKS	D EVANS	GSFC	D D CRAVEN	NAG 5 4269	21
13	UNIV OF ALASKA - FAIRBANKS	H NEEDLEMAN	GSFC	E WESTCOTT	NAG 5 5125	21
13	UNIV OF ALASKA - FAIRBANKS	J BOHLIN	HQ	D OTTO	NAG 5 6219	21
13	UNIV OF ALASKA - FAIRBANKS	L J EARLY	GSFC	D D SENTMAN	NAG 5 5019	21
13	UNIV OF ALASKA - FAIRBANKS	M H ACUNA	GSFC	J D CRAVEN	NAG 5 8042	22
13	UNIV OF ALASKA - FAIRBANKS	S A CURTIS	GSFC	M H REES	NAG 5 7683	22
13	UNIV OF ALASKA - FAIRBANKS	S CURTIS	GSFC	M H REES	NAG 5 7258	22
13	UNIV OF ALASKA - FAIRBANKS	W B JOHNSON	GSFC	R COLLINS	NAG 5 5243	21
13	UNIV OF ALASKA - FAIRBANKS	W GURKIN	GSFC	C DEEHR	NAG 5 5097	21
13	UNIV OF ALASKA - FAIRBANKS	W JOHNSON	GSFC	COLLINS	NAG 5 5218	21
13	UNIV OF ALASKA - FAIRBANKS	W JOHNSON	GSFC	H NIELSEN	NAG 5 5153	21
13	UNIV OF ARIZONA	B A MERRITT	GSFC	G M WEBB	NAG 5 5180	34
13	UNIV OF ARIZONA	C R TALLEY	MSFC	K A JACKSON	NAG 8 1234	38
13	UNIV OF ARIZONA	J I TROMBKA	GSFC	W V BOYNTON	NAG 5 4054	32

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
13	UNIV OF ARIZONA	J M GREBOWSKY	GSFC	J R JOKIPII	NAG 5 2251	29
13	UNIV OF ARIZONA	J S LING	GRC	K R SRIDHAR	NAG 3 2154	29
13	UNIV OF ARIZONA	L JEARLY	GSFC	A L BROADFOOT	NAG 5 637	29
13	UNIV OF ARIZONA	M Y WEI	GSFC	J JOKIPII	NAG 5 4559	33
13	UNIV OF ARIZONA	W JOHNSON	GSFC	J HOLBERG	NAG 5 5143	34
13	UNIV OF ARIZONA	W V JONES	HQ	A BROADFOOT	NAGW 3657	39
13	UNIV OF ARIZONA	W V JONES	HQ	J KOTA	NAGW 4542	39
13	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	C F MCKEE	NGT 5 50196	84
13	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	G SMOOT	NGT 5 50189	83
13	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	P L RICHARDS	NGT 5 50195	84
13	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	R JEANLOZ	NGT 5 50188	83
13	UNIV OF CALIFORNIA - BERKELEY	A POLAND	GSFC	G FISHER	NAG 5 7353	77
13	UNIV OF CALIFORNIA - BERKELEY	A POLAND	GSFC	O SIEGMUND	NAG 5 7351	77
13	UNIV OF CALIFORNIA - BERKELEY	B A MERRITT	GSFC	A J WESTPHAL	NAG 5 5231	75
13	UNIV OF CALIFORNIA - BERKELEY	B FLOWERS	GSFC	O SIEGMUND	NAG 5 5132	75
13	UNIV OF CALIFORNIA - BERKELEY	B J MOTIL	GRC	V P CAREY	NAG 3 2105	72
13	UNIV OF CALIFORNIA - BERKELEY	C R MCCREIGHT	ARC	P L RICHARDS	NAG 2 711	71
13	UNIV OF CALIFORNIA - BERKELEY	C R MCCREIGHT	ARC	P L RICHARDS	NAG 2 1275	71
13	UNIV OF CALIFORNIA - BERKELEY	D EVANS	GSFC	D E ERGUN	NAG 5 4898	74
13	UNIV OF CALIFORNIA - BERKELEY	D HUBBARD	MSFC	R E PACKARD	NAG 8 1432	79
13	UNIV OF CALIFORNIA - BERKELEY	D MENCHAN	GSFC	G BASRI	NAG 5 8410	79
13	UNIV OF CALIFORNIA - BERKELEY	D PIERCE	GSFC	M HURWITZ	NAG 5 5213	75
13	UNIV OF CALIFORNIA - BERKELEY	H C NEEDLEMAN	GSFC	A J WESTPHAL	NAG 5 5107	75
13	UNIV OF CALIFORNIA - BERKELEY	H C NEEDLEMAN	GSFC	R W LIN	NAG 5 5102	75
13	UNIV OF CALIFORNIA - BERKELEY	H NEEDLEMAN	GSFC	C HAILEY	NAG 5 5146	75
13	UNIV OF CALIFORNIA - BERKELEY	J BOHLIN	GSFC	D ANGELOPOULOS	NAG 5 6262	75
13	UNIV OF CALIFORNIA - BERKELEY	J R SKARDA	GRC	E KNOBLOCK	NAG 3 2152	72
13	UNIV OF CALIFORNIA - BERKELEY	J THIEMAN	GSFC	I HAWKINS	NCC 5 253	81
13	UNIV OF CALIFORNIA - BERKELEY	K OBILVIE	GSFC	R P LIN	NAG 5 6928	76
13	UNIV OF CALIFORNIA - BERKELEY	L ZANETTI	GSFC	R LIN	NAG 5 6870	76
13	UNIV OF CALIFORNIA - BERKELEY	M C NEEDLEMAN	GSFC	E F FRANCE	NAG 5 5092	75
13	UNIV OF CALIFORNIA - BERKELEY	M H ACUNA	GSFC	R P LIN	NAG 5 959	72
13	UNIV OF CALIFORNIA - BERKELEY	M HESSE	GSFC	C W CARLSON	NAG 5 6932	76
13	UNIV OF CALIFORNIA - BERKELEY	M HESSE	GSFC	R P LIN	NAG 5 4109	74
13	UNIV OF CALIFORNIA - BERKELEY	M S BURRELL	GSFC	J C DAVIS	NGT 5 83	82
13	UNIV OF CALIFORNIA - BERKELEY	R A HOFFMAN	GSFC	F S MOZER	NAG 5 3182	73
13	UNIV OF CALIFORNIA - BERKELEY	R HOWARD	GSFC	D E ERGUN	NAG 5 3916	73
13	UNIV OF CALIFORNIA - BERKELEY	W B JOHNSN	GSFC	M V HURWITZ	NAG 5 696	72
13	UNIV OF CALIFORNIA - BERKELEY	W B JOHNSON	GSFC	M V HURWITZ	NAG 5 5197	75
13	UNIV OF CALIFORNIA - BERKELEY	W WAGNER	GSFC	D STARK	NAG 5 6052	75
13	UNIV OF CALIFORNIA - DAVIS	D DIETRICH	GRC	B SHAW	NCC 3 477	87
13	UNIV OF CALIFORNIA - IRVINE	H C NEEDLEMAN	WFF	S W BARWICK	NAG 5 5069	90
13	UNIV OF CALIFORNIA - IRVINE	S LA SHERAS	GRC	S ELGHOBASHI	NAG 3 1831	89
13	UNIV OF CALIFORNIA - LOS ANGELES	A POLAND	GSFC	J PAP	NAG 5 7386	97
13	UNIV OF CALIFORNIA - LOS ANGELES	A POLAND	GSFC	R ULRICH	NAG 5 7321	97
13	UNIV OF CALIFORNIA - LOS ANGELES	B S SINGH	GRC	J RUDNICK	NAG 3 1862	92
13	UNIV OF CALIFORNIA - LOS ANGELES	B SINGH	GRC	D J DURIAN	NAG 3 1849	92
13	UNIV OF CALIFORNIA - LOS ANGELES	C JACKMAN	GSFC	D PAP	NAG 5 6680	96
13	UNIV OF CALIFORNIA - LOS ANGELES	D EVANS	GSFC	D M THORNE	NAG 5 4680	95
13	UNIV OF CALIFORNIA - LOS ANGELES	E C WHIPPLE	HQ	C T RUSSELL	NAGW 3974	100
13	UNIV OF CALIFORNIA - LOS ANGELES	E C WHIPPLE	HQ	F V CORONITI	NAGW 4130	100
13	UNIV OF CALIFORNIA - LOS ANGELES	J BOHLIN	GSFC	D ASHOUR-ABDALLA	NAG 5 4683	95
13	UNIV OF CALIFORNIA - LOS ANGELES	J BOHLIN	GSFC	D PELLAT	NAG 5 6377	96
13	UNIV OF CALIFORNIA - LOS ANGELES	J BOHLIN	GSFC	F V CORONITI	NAG 5 3761	93
13	UNIV OF CALIFORNIA - LOS ANGELES	J BOHLIN	GSFC	K K KHURANA	NAG 5 3722	93
13	UNIV OF CALIFORNIA - LOS ANGELES	J BOHLIN	GSFC	P R LYONS	NAG 5 6243	96
13	UNIV OF CALIFORNIA - LOS ANGELES	J BOHLIN	GSFC	R J STRANGWAY	NAG 5 3764	93
13	UNIV OF CALIFORNIA - LOS ANGELES	J D BOHLIN	GSFC	D ASHOUR-ABDALLA	NAG 5 4030	94
13	UNIV OF CALIFORNIA - LOS ANGELES	J D BOHLIN	GSFC	D ASHOUR-ABDALLA	NAG 5 4067	94
13	UNIV OF CALIFORNIA - LOS ANGELES	J D BOHLIN	GSFC	D L PRITCHETT	NAG 5 4339	94
13	UNIV OF CALIFORNIA - LOS ANGELES	J D BOHLIN	GSFC	D T RUSSELL	NAG 5 4066	94
13	UNIV OF CALIFORNIA - LOS ANGELES	J GREBOWSKY	GSFC	D K KHURANA	NAG 5 4661	95
13	UNIV OF CALIFORNIA - LOS ANGELES	J GREBOWSKY	GSFC	D RAEDER	NAG 5 4684	95
13	UNIV OF CALIFORNIA - LOS ANGELES	J GREBOWSKY	GSFC	F CORONITE	NAG 5 8132	98
13	UNIV OF CALIFORNIA - LOS ANGELES	J GREBOWSKY	GSFC	P BERCHEM	NAG 5 4685	95
13	UNIV OF CALIFORNIA - LOS ANGELES	J J GREBOWSKY	GSFC	F V CORONITI	NAG 5 3235	93

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
13	UNIV OF CALIFORNIA - LOS ANGELES	M H ACUNA	GSFC	M ASHOUR-ABDALLA	NAG 5 8074	98
13	UNIV OF CALIFORNIA - LOS ANGELES	M KAPLAN	HQ	E L WRIGHT	NAGW 4844	100
13	UNIV OF CALIFORNIA - LOS ANGELES	M M MELLOTT	GSFC	D M THORNE	NAG 5 4270	94
13	UNIV OF CALIFORNIA - LOS ANGELES	M M MELLOTT	GSFC	D PARISH	NAG 5 4527	95
13	UNIV OF CALIFORNIA - LOS ANGELES	M M MELLOTT	HQ	R P TURCO	NAGW 4956	100
13	UNIV OF CALIFORNIA - LOS ANGELES	M MELLOTT	GSFC	F V CORONITI	NAG 5 8059	98
13	UNIV OF CALIFORNIA - LOS ANGELES	R A HOFFMAN	GSFC	C T RUSSELL	NAG 5 3171	93
13	UNIV OF CALIFORNIA - LOS ANGELES	R A HOFFMAN	HQ	J BERCHEM	NAGW 4541	100
13	UNIV OF CALIFORNIA - LOS ANGELES	R A HOFFMAN	HQ	J RAEDER	NAGW 4543	100
13	UNIV OF CALIFORNIA - LOS ANGELES	R HOFFMAN	HQ	M ASHOUR-ABDALLA	NAGW 4553	100
13	UNIV OF CALIFORNIA - LOS ANGELES	R HOWARD	GSFC	D T RUSSELL	NAG 5 3880	94
13	UNIV OF CALIFORNIA - LOS ANGELES	S A CURTIS	GSFC	M A ABDALLA	NAG 5 1100	93
13	UNIV OF CALIFORNIA - LOS ANGELES	W M DUVAL	GRC	S J PUTTERMAN	NAG 3 2108	93
13	UNIV OF CALIFORNIA - LOS ANGELES	W WAGNER	GSFC	D M PAP	NAG 5 6008	95
13	UNIV OF CALIFORNIA - RIVERSIDE	H C NEEDLEMAN	GSFC	A D ZYCH	NAG 5 5116	102
13	UNIV OF CALIFORNIA - RIVERSIDE	H C NEEDLEMAN	GSFC	O T TUMER	NAG 5 5118	102
13	UNIV OF CALIFORNIA - SAN DIEGO	A NURRIDIN	HQ	G M FULLER	NGT 5 50183	113
13	UNIV OF CALIFORNIA - SAN DIEGO	G L MCANINCH	LARC	R A SOHN	NCC 1 305	111
13	UNIV OF CALIFORNIA - SAN DIEGO	H C NEEDLEMAN	GSFC	J L MATTESON	NAG 5 5111	106
13	UNIV OF CALIFORNIA - SAN DIEGO	J BOHLIN	GSFC	D B QUEST	NAG 5 4658	105
13	UNIV OF CALIFORNIA - SAN DIEGO	J D BOHLIN	GSFC	D I SHEVCHENKO	NAG 5 4468	105
13	UNIV OF CALIFORNIA - SAN DIEGO	J R SKARDA	GRC	C POZRIKIDIS	NAG 3 2117	103
13	UNIV OF CALIFORNIA - SAN DIEGO	M HESSE	GSFC	C E MCILWAIN	NAG 5 6931	107
13	UNIV OF CALIFORNIA - SAN DIEGO	M M MELLOTT	HQ	E C WHIPPLE	NAGW 1150	110
13	UNIV OF CALIFORNIA - SAN DIEGO	W J WAGNER	GSFC	D V JACKSON	NAG 5 6212	106
13	UNIV OF CALIFORNIA - SANTA BARBARA	A NURRIDIN	HQ	P LUBIN	NGT 5 50192	119
13	UNIV OF CALIFORNIA - SANTA BARBARA	B S SINGH	GRC	P AHLERS	NAG 3 1847	114
13	UNIV OF CALIFORNIA - SANTA BARBARA	G MUCKLOW	GSFC	A CLELAND	NAG 5 8669	117
13	UNIV OF CALIFORNIA - SANTA BARBARA	J POE	MSFC	G AHLERS	NAG 8 1429	117
13	UNIV OF CHICAGO	A NURRIDIN	GSFC	D MULLER	NGT 5 50005	216
13	UNIV OF CHICAGO	B A MERRITT	GSFC	D MULLER	NAG 5 5223	214
13	UNIV OF CHICAGO	B A MERRITT	GSFC	J A SIMPSON	NAG 5 5179	214
13	UNIV OF CHICAGO	B A MERRITT	GSFC	S P SWORDY	NAG 5 5178	214
13	UNIV OF CHICAGO	B MERRITT	GSFC	SWORDY	NAG 5 5229	214
13	UNIV OF CHICAGO	H C NEEDLEMAN	GSFC	D MULLER	NAG 5 5070	213
13	UNIV OF CHICAGO	H C NEEDLEMAN	GSFC	D MULLER	NAG 5 5072	213
13	UNIV OF CHICAGO	H C NEEDLEMAN	GSFC	S P SWORDY	NAG 5 5071	213
13	UNIV OF CHICAGO	J M GREBOWSKY	GSFC	R ROSNER	NAG 5 8495	215
13	UNIV OF CHICAGO	J WILLETT	GSFC	D PYLE	NAG 5 4153	212
13	UNIV OF CHICAGO	M C NEEDLEMAN	GSFC	D MULLER	NAG 5 5089	213
13	UNIV OF CHICAGO	M S BURRELL	GSFC	R H HILDERBRAND	NGT 5 63	216
13	UNIV OF CHICAGO	M S BURRELL	GSFC	S MEYER	NGT 5 86	216
13	UNIV OF CHICAGO	T J BIRMINGHAM	GSFC	R ROSNER	NAG 5 1485	212
13	UNIV OF CHICAGO	W J WAGNER	GSFC	D CATTANEO	NAG 5 4953	213
13	UNIV OF COLORADO - BOULDER	A J KLIMAS	GSFC	D N BAKER	NAG 5 8442	143
13	UNIV OF COLORADO - BOULDER	D HOLLAND	HQ	E ZWEIBEL	NGT 51642	146
13	UNIV OF COLORADO - BOULDER	D HUBBARD	MSFC	J HALL	NAG 8 1446	144
13	UNIV OF COLORADO - BOULDER	E C WHIPPLE	HQ	N SCHNEIDER	NAGW 4145	145
13	UNIV OF COLORADO - BOULDER	H K NAHRA	GRC	J E COLWELL	NAG 3 2136	131
13	UNIV OF COLORADO - BOULDER	J BOHLIN	GSFC	D DOXAS	NAG 5 6198	138
13	UNIV OF COLORADO - BOULDER	J BOHLIN	GSFC	D HORANYI	NAG 5 4343	135
13	UNIV OF COLORADO - BOULDER	J BOHLIN	GSFC	D LI	NAG 5 4896	136
13	UNIV OF COLORADO - BOULDER	J S LING	GRC	N A CLARK	NAG 3 1846	131
13	UNIV OF COLORADO - BOULDER	J S LING	GRC	R H DAVIS	NAG 3 1850	131
13	UNIV OF COLORADO - BOULDER	J SLAVIN	GSFC	D BAKER	NAG 5 8461	143
13	UNIV OF COLORADO - BOULDER	L EARLY	GSFC	S SOLOMON	NAG 5 5027	136
13	UNIV OF COLORADO - BOULDER	L J EARLY	GSFC	J FORBES	NAG 5 5028	137
13	UNIV OF COLORADO - BOULDER	L J EARLY	GSFC	W C CASH	NAG 5 5020	136
13	UNIV OF COLORADO - BOULDER	L W GURKIN	GSFC	J C GREEN	NAG 5 5090	137
13	UNIV OF COLORADO - BOULDER	M KAPLAN	HQ	W C CASH	NAGW 4803	145
13	UNIV OF COLORADO - BOULDER	M M MELLOTT	GSFC	D OPPENHEIM	NAG 5 4263	134
13	UNIV OF COLORADO - BOULDER	M M MELLOTT	GSFC	D ROBERTSON	NAG 5 4526	135
13	UNIV OF COLORADO - BOULDER	M MELLOTT	GSFC	D GOLDMAN	NAG 5 4099	134
13	UNIV OF COLORADO - BOULDER	M MELLOTT	GSFC	P FORBES	NAG 5 4467	135
13	UNIV OF COLORADO - BOULDER	M S BURRELL	GSFC	R MCCRAY	NGT 5 80	147
13	UNIV OF COLORADO - BOULDER	P M DOTY	MSFC	A GREENBERG	NAG 8 1475	144

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
13	UNIV OF COLORADO - BOULDER	R HOWARD	GSFC	D C SOLOMON	NAG 5 3949	133
13	UNIV OF COLORADO - BOULDER	R HOWARD	GSFC	P N BAKER	NAG 5 4580	135
13	UNIV OF COLORADO - BOULDER	S C JOHNSON	MSFC	R G FREHLICH	NAG 8 1306	144
13	UNIV OF COLORADO - BOULDER	S HOWARD	GSFC	D GRINSPOON	NAG 5 4982	136
13	UNIV OF COLORADO - BOULDER	T J BIRMINGHAM	GSFC	J TOOMRE	NAG 5 2256	132
13	UNIV OF COLORADO - BOULDER	W B JOHNSON	GSFC	D FRITTS	NAG 5 5029	137
13	UNIV OF COLORADO - BOULDER	W G WAGNER	GSFC	D JULIEN	NAG 5 4918	136
13	UNIV OF COLORADO - BOULDER	W J WAGNER	GSFC	D KIPLINGER	NAG 5 4477	135
13	UNIV OF COLORADO - BOULDER	W J WAGNER	GSFC	D R AYRES	NAG 5 6124	137
13	UNIV OF COLORADO - BOULDER	W JOHNSON	GSFC	J GREEN	NAG 5 5096	137
13	UNIV OF COLORADO - BOULDER	W JOHNSON	GSFC	T WOODS	NAG 5 5141	137
13	UNIV OF COLORADO - BOULDER	W WAGNER	GSFC	D KIPLINGER	NAG 5 4183	134
13	UNIV OF CONNECTICUT	D HUBBARD	MSFC	J JAVANAINEN	NAG 8 1428	152
13	UNIV OF DAYTON	E CHRISTIANSEN	JSC	A J PIEKUTOWSKI	NCC 9 74	426
13	UNIV OF DELAWARE - BARTOL RES. INST	H NEEDLEMAN	GSFC	P EVENSON	NAG 5 5063	157
13	UNIV OF DELAWARE - BARTOL RES. INST	H NEEDLEMAN	GSFC	T STANEV	NAG 5 5106	157
13	UNIV OF DELAWARE - BARTOL RES. INST	J GREBOWSKY	GSFC	W H MATTHAEUS	NAG 5 8134	158
13	UNIV OF DELAWARE - BARTOL RES. INST	M ACUNA	GSFC	N F NESS	NAG 5 2848	156
13	UNIV OF DELAWARE - BARTOL RES. INST	M ACUNA	GSFC	N NESS	NAG 5 3538	157
13	UNIV OF DELAWARE - BARTOL RES. INST	M ACUNA	GSFC	N NESS	NAG 5 8827	158
13	UNIV OF DELAWARE - BARTOL RES. INST	M GOLDSTEIN	GSFC	W MATTHAEUS	NAG 5 3026	156
13	UNIV OF DELAWARE - BARTOL RES. INST	M MELLOTT	HQ	N AVAILABLE	NAGW 1637	158
13	UNIV OF DELAWARE - BARTOL RES. INST	T BIRMINGHAM	GSFC	W H MATTHAEUS	NAG 5 1573	156
13	UNIV OF DELAWARE	B A MERRITT	GSFC	P A EVENSON	NAG 5 5221	155
13	UNIV OF DELAWARE	B A MERRITT	GSFC	T K GAISSE	NAG 5 5181	155
13	UNIV OF DELAWARE	H C NEEDLEMAN	GSFC	T K GAISSE	NAG 5 5054	155
13	UNIV OF DELAWARE	J BOHLIN	GSFC	D PONTIUS	NAG 5 6553	155
13	UNIV OF DELAWARE	J W POE	MSFC	S T CHUI	NAG 8 1427	156
13	UNIV OF FLORIDA	C DEGON	GRC	R ABBASCHIAN	NCC 3 476	181
13	UNIV OF FLORIDA	H S BLOOMFIELD	GRC	N J DIAZ	NAS 3 26314	181
13	UNIV OF HAWAII AT MANOA - HONOLULU	E BAKER	HQ	D J THOLEN	NAGW 4955	205
13	UNIV OF HAWAII AT MANOA - HONOLULU	E BARKER	HQ	D C JEWITT	NAGW 4918	205
13	UNIV OF HAWAII AT MANOA - HONOLULU	E BARKER	HQ	F J RODDIER	NAGW 4935	205
13	UNIV OF HAWAII AT MANOA - HONOLULU	E CHENG	GSFC	G LUPPINO	NAG 5 8751	203
13	UNIV OF HAWAII AT MANOA - HONOLULU	J D BOHLIN	HQ	R C CANFIELD	NAGW 1542	204
13	UNIV OF HAWAII AT MANOA - HONOLULU	J M BOYCE	HQ	B R HAWKE	NAGW 4886	204
13	UNIV OF HAWAII AT MANOA - HONOLULU	J M BOYCE	HQ	P G LUCEY	NAGW 4874	204
13	UNIV OF HAWAII AT MANOA - HONOLULU	W WGNER	GSFC	B J LABONTE	NAG 5 4941	200
13	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	B S SINGH	GRC	D M CEPERLEY	NAG 3 1926	218
13	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	C TALLEY	MSFC	J S WALKER	NAG 8 1453	221
13	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	L W GURKIN	GSFC	F KUDEKI	NAG 5 5087	220
13	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	P M DOTY	MSFC	J A LEWIS	NAG 8 1471	222
13	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	W JOHNSON	GSFC	C GARDNER	NAG 5 5241	220
13	UNIV OF IOWA	D EVANS	GSFC	D F OTANI	NAG 5 4266	234
13	UNIV OF IOWA	D H FAIRFIELD	GSFC	L A FRANK	NAG 5 7684	234
13	UNIV OF IOWA	D H FAIRFIELD	GSFC	R R ANDERSON	NAG 5 7710	234
13	UNIV OF IOWA	H C NEEDLEMAN	GSFC	S R SPANGLER	NAG 5 5051	234
13	UNIV OF IOWA	J BOHLIN	GSFC	D H CAIRNS	NAG 5 6369	234
13	UNIV OF IOWA	K W OGILVIE	GSFC	J D SCUDDER	NAG 5 2939	233
13	UNIV OF IOWA	M ACONA	GSFC	L A FRANK	NAG 5 2371	233
13	UNIV OF IOWA	M ACONA	GSFC	R R ANDERSON	NAG 5 2346	233
13	UNIV OF IOWA	M H ACUNA	GSFC	J D SCUDDER	NAG 5 2231	233
13	UNIV OF IOWA	M H ACUNA	GSFC	J D SCUDDER	NAG 5 7883	235
13	UNIV OF IOWA	M M MELLOTT	GSFC	D MENIETTI	NAG 5 4497	234
13	UNIV OF IOWA	M M MELLOTT	GSFC	D A KLETZING	NAG 5 6525	234
13	UNIV OF IOWA	N PELLIS	JSC	D A GURNETT	NAS 5 30371	235
13	UNIV OF IOWA	N PELLIS	JSC	L FRANK	NAS 5 30316	235
13	UNIV OF IOWA	P D CRAVEN	MSFC	J D MENIETTI	NAG 8 1153	235
13	UNIV OF IOWA	R B ROGERS	GRC	J A GOREE	NAG 3 2128	233
13	UNIV OF IOWA	R HOFFMAN	GSFC	A BHATTACHARJEE	NAG 5 3716	233
13	UNIV OF IOWA	R HOFFMAN	GSFC	L A FRANK	NAG 5 7712	234
13	UNIV OF IOWA	R HOWARD	GSFC	D S KURTH	NAG 5 4581	234
13	UNIV OF IOWA	STOUTSENBERGER	GSFC	J SCUDDER	NGT 5 70009	236
13	UNIV OF IOWA	W B JOHNSON	GSFC	C A KLETZING	NAG 5 5232	234
13	UNIV OF KENTUCKY	S SAINI	ARC	M MENON	NAG 2 1208	240
13	UNIV OF LOUISVILLE	H NEEDLEMAN	GSFC	W PITTS	NAG 5 5142	241

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
13	UNIV OF MARYLAND - COLLEGE PARK	B A MERRITT	GSFC	E S SEO	NAG 5 5155	266
13	UNIV OF MARYLAND - COLLEGE PARK	B A MERRITT	GSFC	E S SEO	NAG 5 5204	266
13	UNIV OF MARYLAND - COLLEGE PARK	B A MERRITT	GSFC	E S SEO	NAG 5 5225	266
13	UNIV OF MARYLAND - COLLEGE PARK	B A MERRITT	WFF	E S SEO	NAG 5 5206	266
13	UNIV OF MARYLAND - COLLEGE PARK	B S SINGH	GRC	R A FERRELL	NAG 3 1867	261
13	UNIV OF MARYLAND - COLLEGE PARK	C J CRANNELL	GSFC	E J SCHMAHL	NAG 5 8029	270
13	UNIV OF MARYLAND - COLLEGE PARK	D EVANS	GSFC	D A COPLAN	NAG 5 4152	264
13	UNIV OF MARYLAND - COLLEGE PARK	E C SITTLER	GSFC	M A COPLAN	NAG 5 4638	265
13	UNIV OF MARYLAND - COLLEGE PARK	H C NEDDLEMAN	GSFC	E S SEO	NAG 5 5061	266
13	UNIV OF MARYLAND - COLLEGE PARK	H C NEEDLEMAN	GSFC	E S SEO	NAG 5 5062	266
13	UNIV OF MARYLAND - COLLEGE PARK	H C NEEDLEMAN	GSFC	J A EARL	NAG 5 5056	265
13	UNIV OF MARYLAND - COLLEGE PARK	J BOHLIN	GSFC	D E LOPEZ	NAG 5 6256	267
13	UNIV OF MARYLAND - COLLEGE PARK	J BOHLIN	GSFC	D F DRAKE	NAG 5 6190	267
13	UNIV OF MARYLAND - COLLEGE PARK	J D BOHLIN	HQ	J F DRAKE	NAGW 5175	274
13	UNIV OF MARYLAND - COLLEGE PARK	J D BOHLIN	HQ	R E LOPEZ	NAGW 5191	274
13	UNIV OF MARYLAND - COLLEGE PARK	J GREBOWSKY	GSFC	D E LOPEZ	NAG 5 4662	265
13	UNIV OF MARYLAND - COLLEGE PARK	J W POE	MSFC	H J PAIK	NAG 8 1440	273
13	UNIV OF MARYLAND - COLLEGE PARK	K W OGILVIE	GSFC	M A COPLAN	NAG 5 1129	262
13	UNIV OF MARYLAND - COLLEGE PARK	L W CURKIN	GSFC	M A COPLAN	NAG 5 5083	266
13	UNIV OF MARYLAND - COLLEGE PARK	M H ACUNA	GSFC	K PAPADOPOULOS	NAG 5 7850	270
13	UNIV OF MARYLAND - COLLEGE PARK	M H ACUNA	GSFC	R E LOPEZ	NAG 5 7805	270
13	UNIV OF MARYLAND - COLLEGE PARK	M H ACUNA	GSFC	R E LOPEZ	NAG 5 8027	270
13	UNIV OF MARYLAND - COLLEGE PARK	M HESSE	GSFC	J DRAKE	NAG 5 8459	272
13	UNIV OF MARYLAND - COLLEGE PARK	M L GOLDSTEIN	GSFC	A DEANE	NAG 5 6152	267
13	UNIV OF MARYLAND - COLLEGE PARK	R HOWARD	GSFC	D SEO	NAG 5 4352	265
13	UNIV OF MARYLAND - COLLEGE PARK	S A CURTIS	GSFC	K PAPADOPOULOS	NAG 5 1101	262
13	UNIV OF MARYLAND - COLLEGE PARK	T VONROSENVINGE	GSFC	G MASON	NAG 5 7228	269
13	UNIV OF MARYLAND - COLLEGE PARK	W J WAGNER	GSFC	D J ASCHWANDEN	NAG 5 4026	264
13	UNIV OF MARYLAND - COLLEGE PARK	W J WAGNER	GSFC	D M WHITE	NAG 5 4954	265
13	UNIV OF MARYLAND - COLLEGE PARK	W V JONES	HQ	F B MCDONALD	NAGW 2504	273
13	UNIV OF MARYLAND - COLLEGE PARK	W V JONES	HQ	J A EARL	NAGW 2062	273
13	UNIV OF MASSACHUSETTS - AMHERST	M BICAY	HQ	N ERICKSON	NAGW 2430	310
13	UNIV OF MEMPHIS	G SCHMIDT	MSFC	J HOCHSTEIN	NAG 8 1371	467
13	UNIV OF MICHIGAN - ANN ARBOR	B A MERRITT	GSFC	G TARLE	NAG 5 5173	319
13	UNIV OF MICHIGAN - ANN ARBOR	B A MERRITT	GSFC	G TARLE	NAG 5 5230	319
13	UNIV OF MICHIGAN - ANN ARBOR	B J FLOWERS	GSFC	J CLARK	NAG 5 5121	319
13	UNIV OF MICHIGAN - ANN ARBOR	F SIX	MSFC	C AKERLOT	NGT 8 52805	325
13	UNIV OF MICHIGAN - ANN ARBOR	H C NEDDLEMAN	GSFC	G TARLE	NAG 5 5059	319
13	UNIV OF MICHIGAN - ANN ARBOR	H C NEEDLEMAN	GSFC	C AKERLOF	NAG 5 5101	319
13	UNIV OF MICHIGAN - ANN ARBOR	J BOHLIN	HQ	J U KOZYRA	NAGW 4611	322
13	UNIV OF MICHIGAN - ANN ARBOR	J S SOVEY	GRC	D GALLIMORE	NAG 3 2148	316
13	UNIV OF MICHIGAN - ANN ARBOR	K SACKSTEADER	GRC	A ATREYA	NCC 3 482	323
13	UNIV OF MICHIGAN - ANN ARBOR	M A MANTENIEKS	GRC	A GALLIMORE	NAG 3 2091	316
13	UNIV OF MICHIGAN - ANN ARBOR	M CASTLEMAN	MSFC	B GILCHRIST	NAS 8 39381	322
13	UNIV OF MICHIGAN - ANN ARBOR	M H ACUNA	GSFC	L FISK	NCC 5 383	323
13	UNIV OF MICHIGAN - ANN ARBOR	M H ACUNA	GSFC	R CLAUSER	NAG 5 7765	320
13	UNIV OF MICHIGAN - ANN ARBOR	M M MELLOTT	GSFC	D BURNS	NAG 5 4271	318
13	UNIV OF MICHIGAN - ANN ARBOR	M M MELLOTT	GSFC	D D SKINNER	NAG 5 4007	318
13	UNIV OF MICHIGAN - ANN ARBOR	M M MELLOTT	GSFC	D L KILLEEN	NAG 5 4264	318
13	UNIV OF MICHIGAN - ANN ARBOR	M M MELLOTT	GSFC	D S LIEBERMAN	NAG 5 6083	319
13	UNIV OF MICHIGAN - ANN ARBOR	M M MELLOTT	GSFC	D U KOZYRA	NAG 5 4771	318
13	UNIV OF MICHIGAN - ANN ARBOR	M M MELLOTT	HQ	B GILCHRIST	NAGW 4175	321
13	UNIV OF MICHIGAN - ANN ARBOR	M WEISLOGEL	GRC	M PERLIN	NAG 3 1861	316
13	UNIV OF MICHIGAN - ANN ARBOR	R PLESS	GSFC	J KOZYRA	NAG 5 5030	319
13	UNIV OF MICHIGAN - ANN ARBOR	W B JOHNSON	GSFC	T L KILLEN	NAG 5 5049	319
13	UNIV OF MICHIGAN - ANN ARBOR	W J EMRICH	MSFC	T KAMMASH	NAG 8 1250	321
13	UNIV OF MICHIGAN - ANN ARBOR	W J WAGNER	GSFC	D R COMBI	NAG 5 6122	319
13	UNIV OF MISSOURI - ROLLA	M PURVEY	MSFC	D E DAY	NAG 8 1465	337
13	UNIV OF NEBRASKA - LINCOLN	D A JAWORSKE	GRC	J A WOLLAM	NAG 3 2086	344
13	UNIV OF NEBRASKA - LINCOLN	D A JAWORSKE	GRC	J A WOOLAM	NAG 3 1802	344
13	UNIV OF NEBRASKA - LINCOLN	D A JAWORSKE	GRC	J A WOOLAM	NAG 3 2219	344
13	UNIV OF NEBRASKA - LINCOLN	F A CUCINOTTA	LARC	R KATZ	NAG 1 1447	344
13	UNIV OF NEBRASKA - LINCOLN	M MEYYAPPAN	ARC	S BANDYOPADHYAY	NCC 2 5304	345
13	UNIV OF NEW HAMPSHIRE - DURHAM	B FLOWERS	GSFC	K LYNCH	NAG 5 5124	350
13	UNIV OF NEW HAMPSHIRE - DURHAM	D EVANS	GSFC	D M KISTLER	NAG 5 4695	350
13	UNIV OF NEW HAMPSHIRE - DURHAM	G MUCKLOW	GSFC	M L MCCONNELL	NAG 5 8641	353

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
13	UNIV OF NEW HAMPSHIRE - DURHAM	H NEEDLEMAN	GSFC	J RYAN	NAG 5 5117	350
13	UNIV OF NEW HAMPSHIRE - DURHAM	H NEEDLEMAN	GSFC	J RYAN	NAG 5 5147	350
13	UNIV OF NEW HAMPSHIRE - DURHAM	J BOHLIN	GSFC	D L KAUFMANN	NAG 5 4458	350
13	UNIV OF NEW HAMPSHIRE - DURHAM	J M GREBOWSKY	GSFC	J V HOLLWEG	NAG 5 8228	353
13	UNIV OF NEW HAMPSHIRE - DURHAM	K OGILVIE	GSFC	R TORBERT	NAG 5 6860	351
13	UNIV OF NEW HAMPSHIRE - DURHAM	K W OGILVIE	GSFC	R B TORBERT	NAG 5 2834	349
13	UNIV OF NEW HAMPSHIRE - DURHAM	L CHRISTENSEN	GSFC	R TORBERT	NAG 5 30744	354
13	UNIV OF NEW HAMPSHIRE - DURHAM	L W GURKIN	GSFC	R ARNOLDY	NAG 5 5057	350
13	UNIV OF NEW HAMPSHIRE - DURHAM	LJ EARLY	GSFC	R ARNOLDY	NAG 5 5007	350
13	UNIV OF NEW HAMPSHIRE - DURHAM	M H ACUNA	GSFC	A B GALVIN	NAG 5 8044	353
13	UNIV OF NEW HAMPSHIRE - DURHAM	M H ACUNA	GSFC	R B TOBBERT	NAG 5 8041	353
13	UNIV OF NEW HAMPSHIRE - DURHAM	M H ACUNA	GSFC	V K JORDANOVA	NAG 5 7804	353
13	UNIV OF NEW HAMPSHIRE - DURHAM	M HESSE	GSFC	L M KISTLER	NAG 5 4408	350
13	UNIV OF NEW HAMPSHIRE - DURHAM	M HESSE	GSFC	L M KISTLER	NAG 5 6925	352
13	UNIV OF NEW HAMPSHIRE - DURHAM	M HESSE	GSFC	R B TORBERT	NAG 5 3893	349
13	UNIV OF NEW HAMPSHIRE - DURHAM	M HESSE	GSFC	R B TORBERT	NAG 5 4407	350
13	UNIV OF NEW HAMPSHIRE - DURHAM	M HESSE	GSFC	R B TORBERT	NAG 5 6935	352
13	UNIV OF NEW HAMPSHIRE - DURHAM	M M MELLOTT	GSFC	D A LYNCH	NAG 5 4772	350
13	UNIV OF NEW HAMPSHIRE - DURHAM	R H PLESS	GSFC	R B TORBERT	NAG 5 5033	350
13	UNIV OF NEW HAMPSHIRE - DURHAM	R HOWARD	GSFC	D A LYNCH	NAG 5 3747	349
13	UNIV OF NEW HAMPSHIRE - DURHAM	T J BIRMINGHAM	GSFC	J V HOLLWEG	NAG 5 1479	348
13	UNIV OF NEW HAMPSHIRE - DURHAM	W B JOHNSON	GSFC	K A LYNCH	NAG 5 5040	350
13	UNIV OF NEW HAMPSHIRE - DURHAM	W B JOHNSON	GSFC	R L ARNOLDY	NAG 5 5237	351
13	UNIV OF NEW HAMPSHIRE - DURHAM	W JOHNSON	GSFC	K LYNCH	NAG 5 5234	351
13	UNIV OF NEW MEXICO-ALBUQUERQUE	B S SINGH	GRC	S T BOYD	NAG 3 1976	367
13	UNIV OF NEW ORLEANS	R A WILKINSON	GRC	J HEGSETH	NAG 3 1915	246
13	UNIV OF OREGON - EUGENE	B S SINGH	GRC	D J DONNELLY	NAG 3 1934	436
13	UNIV OF OREGON - EUGENE	J D DOWNIE	ARC	G W RAYFIELD	NAG 2 1173	436
13	UNIV OF PENNSYLVANIA	B S SIGNH	GRC	D A WEITZ	NAG 3 2058	451
13	UNIV OF PENNSYLVANIA	R A WILKINSEN	GRC	A G YODH	NAG 3 2172	451
13	UNIV OF PITTSBURGH	A NURRIDIN	HQ	X WU	NGT 5 50207	454
13	UNIV OF PITTSBURGH	J A POWELL	GRC	W J CHOYKE	NAG 3 2149	453
13	UNIV OF PITTSBURGH	R A WILKINSON	GRC	J V MAHER	NAG 3 1833	453
13	UNIV OF PITTSBURGH	R SKARCH	GRC	W GOLDBURG	NAG 3 2132	453
13	UNIV OF PITTSBURGH	W B JOHNSON	GSFC	E C ZIPF	NAG 5 661	453
13	UNIV OF PUERTO RICO - MAYAGUEZ	B PENN	MSFC	A LYDERMAN	NAG 8 1344	556
13	UNIV OF PUERTO RICO - MAYAGUEZ	M VLASSE	MSFC	A BARRIENTOS	NAG 8 1389	556
13	UNIV OF ROCHESTER	C R MCCREIGHT	ARC	W J FORREST	NAG 2 1142	396
13	UNIV OF ROCHESTER	J D BOHLIN	HQ	J H THOMAS	NAGW 2123	396
13	UNIV OF ROCHESTER	M L TUMA	GRC	T G BROWN	NCC 3 660	397
13	UNIV OF SOUTHERN CALIFORNIA	A POLAND	GSFC	W DAPPEN	NAG 5 7352	125
13	UNIV OF SOUTHERN CALIFORNIA	L J EARLY	GSFC	D L JUDGE	NSG 5108	126
13	UNIV OF SOUTHERN CALIFORNIA	W B JOHNSON	GSFC	D J JUDGE	NAG 5 5018	124
13	UNIV OF SOUTHERN CALIFORNIA	W J WAGNER	GSFC	D A GRUNTMAN	NAG 5 6121	124
13	UNIV OF SOUTHERN CALIFORNIA	W J WAGNER	GSFC	D DAPPEN	NAG 5 6216	124
13	UNIV OF SOUTHERN CALIFORNIA	W WAGNER	GSFC	D RHODES	NAG 5 6104	124
13	UNIV OF SOUTHERN MISSISSIPPI	W S SPEARMAN	MSFC	J A POJMAN	NAG 8 1466	335
13	UNIV OF TENNESSEE - KNOXVILLE	J COLE	MSFC	J W MUELHAUSER	NAG 8 97301	468
13	UNIV OF TENNESSEE - KNOXVILLE	J POE	MSFC	A J SANDERS	NAG 8 1442	468
13	UNIV OF TENNESSEE - KNOXVILLE	J W WILSON	LARC	C R RAMSEY	NGT 1 52138	469
13	UNIV OF TEXAS - AUSTIN	B S SINGH	GRC	D J HEINZEN	NAG 3 1901	490
13	UNIV OF TEXAS - AUSTIN	F HERRERO	GSFC	D T JAFFE	NAG 5 8858	494
13	UNIV OF TEXAS - DALLAS	G A SOFFEN	GSFC	R A HELLIS	NGT 5 23	498
13	UNIV OF TEXAS - DALLAS	J D BOHLIN	HQ	R A HEELIS	NAGW 4492	498
13	UNIV OF TEXAS - DALLAS	L W GURKIN	GSFC	G D EARLE	NAG 5 5076	498
13	UNIV OF TEXAS - DALLAS	L W GURKIN	GSFC	R A HEELIS	NAG 5 5086	498
13	UNIV OF TEXAS - DALLAS	M M MELLOTT	GSFC	D A HEELIS	NAG 5 4465	498
13	UNIV OF TEXAS - DALLAS	M M MELLOTT	GSFC	D D EARLE	NAG 5 4187	497
13	UNIV OF TEXAS - DALLAS	M M MELLOTT	GSFC	R COLEY	NAG 5 4725	498
13	UNIV OF TEXAS - DALLAS	R HOWARD	GSFC	D A HEELIS	NAG 5 3740	497
13	UNIV OF TEXAS - EL PASO	B PENN	MSFC	C DIRK	NAG 8 1393	499
13	UNIV OF TOLEDO	D E BREWE	GRC	T G KEITH	NAG 3 2041	426
13	UNIV OF TOLEDO	G ADAWOVSKY	GSFC	S GILES	NCC 3 584	428
13	UNIV OF UTAH	B A MERRITT	GSFC	E LOH	NAG 5 5195	502
13	UNIV OF VERMONT	W JOHNSON	GSFC	T KELLER	NAG 5 5135	505
13	UNIV OF VIRGINIA	B GUYNES	MSFC	M C WIENER	NAG 8 1567	525

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
13	UNIV OF VIRGINIA	C E GLASS	LARC	D A STAACK	NGT 1 52212	526
13	UNIV OF WASHINGTON	A NURRIDIN	GSFC	M P MCCARTHY	NGT 5 50095	542
13	UNIV OF WASHINGTON	B J FLOWERS	GSFC	G K PARKS	NAG 5 677	533
13	UNIV OF WASHINGTON	B S SINGH	GRC	W NAGOURNEY	NAG 3 1865	533
13	UNIV OF WASHINGTON	D HOLLAND	GSFC	T R QUINN	NAG 5 3462	534
13	UNIV OF WASHINGTON	J GREBOWSKY	GSFC	D C WHIPPLE	NAG 5 4686	535
13	UNIV OF WASHINGTON	J GREBOWSKY	GSFC	D MCCARTHY	NAG 5 4681	535
13	UNIV OF WASHINGTON	J L CHRISTENSEN	GSFC	G K PARKS	NAS 5 30613	540
13	UNIV OF WASHINGTON	J S LING	GRC	E J DAVIS	NAG 3 1837	533
13	UNIV OF WASHINGTON	K W OGILVIE	GSFC	G K PARKS	NAG 5 2813	534
13	UNIV OF WASHINGTON	L J EARLY	GSFC	R H HOLZWORTH	NAG 5 5011	536
13	UNIV OF WASHINGTON	M HESSE	GSFC	G PARKS	NAG 5 6924	537
13	UNIV OF WASHINGTON	M HESSE	GSFC	G R KS	NAG 5 6678	537
13	UNIV OF WASHINGTON	M M MELLOTT	GSFC	D M WINGLEE	NAG 5 6244	536
13	UNIV OF WASHINGTON	R HOFFMAN	GSFC	G K PARKS	NAG 5 7732	538
13	UNIV OF WASHINGTON	W B JOHNSON	GSFC	M MCCARTHY	NAG 5 5190	536
13	UNIV OF WASHINGTON	W B JOHNSON	GSFC	R H HOLZWORTH	NAG 5 5183	536
13	UNIV OF WISCONSIN - MADISON	A NURRIDIN	HQ	P TIMBIE	NGT 5 50185	554
13	UNIV OF WISCONSIN - MADISON	C TALLEY	MSFC	R F COOPER	NAG 8 1460	551
13	UNIV OF WISCONSIN - MADISON	G MUCKLOW	GSFC	D MCCAMMON	NAG 5 8537	551
13	UNIV OF WISCONSIN - MADISON	L J EARLY	GSFC	D MCCAMMON	NAG 5 679	547
13	UNIV OF WISCONSIN - MADISON	L J EARLY	GSFC	K H NORDSIECK	NAG 5 647	547
13	UNIV OF WISCONSIN - MADISON	L J EARLY	GSFC	R J REYNOLDS	NAG 5 674	547
13	UNIV OF WISCONSIN - MADISON	L W GURKIN	GSFC	W M HARRIS	NAG 5 5091	549
13	UNIV OF WISCONSIN - MADISON	M S BURRELL	GSFC	D MCCAMMON	NGT 5 70	553
13	UNIV OF WISCONSIN - MADISON	R KELLEY	GSFC	D MCCAMMON	NAG 5 7101	550
13	UNIV OF WISCONSIN - MADISON	R SILVERBERG	GSFC	P TIMBIE	NAG 5 4484	548
13	UNIV OF WISCONSIN - MILWAUKEE	F A CUCINOTTA	LARC	J W NORBURY	NCC 1 260	554
13	UNIV OF WISCONSIN - MILWAUKEE	R C SINGLETERRY, JR.	LARC	J W NORBURY	NCC 1 354	554
13	UNIV OF WISCONSIN - MILWAUKEE	R C SINGLETERRY, JR.	LARC	S R BLATTNING	NGT 1 52217	554
13	UTAH STATE UNIV	L GURKIN	GSFC	P ESPY	NAG 5 5081	503
13	UTAH STATE UNIV	M M MELLOTT	GSFC	D G FEJER	NAG 5 4469	503
13	UTAH STATE UNIV	P H PLESS	GSFC	J C ULWICK	NAG 5 5046	503
13	UTAH STATE UNIV	R H PLESS	GSFC	D M SWENSON	NAG 5 5044	503
13	UTAH STATE UNIV	T E MOORE	MSFC	W J RAITT	NCC 8 121	505
13	UTAH STATE UNIV	T J BIRMINGHAM	GSFC	R W SCHUNK	NAG 5 1484	503
13	UTAH STATE UNIV	W B JOHNSON	GSFC	C M SWENSON	NAG 5 5187	503
13	UTAH STATE UNIV	W B JOHNSON	GSFC	J C ULWICK	NAG 5 5189	503
13	UTAH STATE UNIV	W B JOHNSON	GSFC	J C ULWICK	NAG 5 5245	503
13	WASHINGTON STATE UNIV	F J MONTEGANI	GRC	P MARSTON	NGT 3 52330	543
13	WASHINGTON STATE UNIV	N R HALL	GRC	P L MARSTON	NAG 3 2114	542
13	WASHINGTON STATE UNIV	R SKARDA	GRC	P L MARSTON	NAG 3 1918	542
13	WASHINGTON UNIV - ST	A NURRIDIN	HQ	P L HINK	NGT 5 50170	341
13	WASHINGTON UNIV - ST	H C NEDDLEMAN	GSFC	R W BINNS	NAG 5 5078	338
13	WASHINGTON UNIV - ST	H C NEEDLEMAN	GSFC	P L HINK	NAG 5 5114	339
13	WASHINGTON UNIV - ST	H NEEDLEMAN	GSFC	R BINNS	NAG 5 5110	339
13	WASHINGTON UNIV - ST	H NEEDLEMAN	GSFC	W R BINNS	NAG 5 5154	339
13	WASHINGTON UNIV - ST	J M BOYCE	HQ	L A HASKIN	NAGW 4906	340
13	WASHINGTON UNIV - ST	P H JOHNSTON	LARC	K R WATERS	NGT 1 52197	341
13	WASHINGTON UNIV - ST	W P WINFREE	LARC	J G MILLER	NAG 1 1848	337
13	WRIGHT STATE UNIV	M M MELLOTT, SR.	GSFC	D L FOX	NAG 5 4188	429
13	YALE UNIV	A E SZMKOWIAK	GSFC	D PROBER	NAG 5 7739	154
13	YALE UNIV	B S SINGH	GRC	P GIBBLE	NAG 3 1866	153
13	YALE UNIV	C TALLEY	MSFC	R E APFEL	NAG 8 1461	154
13	YALE UNIV	D HUBBARD	MSFC	K GIBBLE	NAG 8 1449	154
13	YALE UNIV	D HUBBARD	MSFC	M A KASEVICH	NAG 8 1443	154
13	YALE UNIV	R B ROGERS	GRC	R E APFEL	NAG 3 2147	153
13	YALE UNIV	S H MOSELEY	GSFC	D E PROBER	NAG 5 2892	153
19	ALABAMA A&M UNIV	B PENN	MSFC	B PENN	NAG 8 1400	1
19	ALBANY STATE UNIV	G GORDON	MSFC	S N PANDAY	NAG 8 1489	186
19	ARIZONA STATE UNIV	J A NUTH	HQ	S WYCOFF	NAGW 2241	26
19	AUBURN UNIV	J HOWELL	MSFC	H W BRANDHORST	NAG 8 1563	3
19	AUBURN UNIV	P J GEORGE	GRC	H W BRANDHORST	NAS 3 99200	3
19	BAY MILLS COMM COLLEGE	A F HEPP	GRC	T DAVIS	NCC 3 609	312
19	BAYLOR COLLEGE OF MED	B GUYBES	MSFC	T G WENSEL	NAG 8 1387	471
19	BAYLOR COLLEGE OF MED	S SCHNEIDER	JSC	A BEBLANC	NCC 9 88	472

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
19	BOSTON UNIV	R HOFFMAN	GSFC	H E SPENCER	NAG 5 7706	283
19	BOSTON UNIV	R HOFFMAN	GSFC	T FRITZ	NAG 5 7677	283
19	CALIFORNIA INST OF TECH	E K STANSBERRY	JSC	D S BURNETT	NAG 9 1013	49
19	CALIFORNIA INST OF TECH	J LAUDADIO	GSFC	E STONE	NAS 5 32626	49
19	CALIFORNIA INST OF TECH	T DCLOACH	MSFC	W JOHNSON	NAG 8 1182	49
19	CALIFORNIA STATE UNIV - FULLERTON	E K STANSBERRY	JSC	D S WOOLUM	NAG 9 1009	52
19	CALIFORNIA STATE UNIV - NORTHRIDGE	J GURMAN	GSFC	G A CHAPMAN	NAG 5 7878	54
19	CALIFORNIA STATE UNIV - NORTHRIDGE	J GURMAN	GSFC	M J PENN	NAG 5 8004	54
19	CASE WESTERN RESERVE UNIV	A D PLINE	GRC	S OSTRACH	NAG 3 1568	409
19	CASE WESTERN RESERVE UNIV	D F CHAO	GRC	Y KAMOTANI	NAG 3 1913	409
19	CENTRAL STATE UNIV - OHIO	J A SALZMAN	GRC	M M GIRGIS	NAG 3 1463	412
19	CLARK ATLANTA UNIV	K J BOWLES	GRC	A BADIR	NAS 3 27881	187
19	CLARKSON UNIV	C TALLEY	MSFC	L L REGEL	NAG 8 1482	371
19	CLARKSON UNIV	M E HILL	GRC	S P LIN	NAG 3 1891	371
19	CLARKSON UNIV	P DOTY	MSFC	W R WILCOX	NAG 8 1266	371
19	COLLEGE OF WILLIAM AND MARY	A K ST. CLAIR	LARC	R L KIEFER	NCC 1 327	508
19	COLLEGE OF WILLIAM AND MARY	T L ST. CLAIR	LARC	M HINDERS	NGT 1 52203	508
19	CORNELL UNIV	B GUYNES	MSFC	R THORNE	NAG 8 1357	383
19	DARTMOUTH COLLEGE	S CURTIS	GSFC	M HUDSON	NAG 5 7442	347
19	DUKE UNIV	D CARTER	MSFC	D C RICHARDSON	NAG 8 966	398
19	EASTERN KENTUCKY UNIV	J CONNOLLY	JSC	W BOLES	NAG 9 906	240
19	FISK UNIV	A F HEPP	GRC	D O HENDERSON	NCC 3 575	465
19	FISK UNIV	A LEHOCZKY	MSFC	A BURGER	NCC 8 145	465
19	FISK UNIV	C H SU	MSFC	A BURGER	NCC 8 163	465
19	FISK UNIV	U	GRC	D O HENDERSON	NAG 8 1604	465
19	FLORIDA ATLANTIC UNIV	R J GUNDERMAN	GRC	H F HELMKEN	NAS 3 26956	171
19	GEORGETOWN UNIV	S M SMITH	JSC	E WASTNEY	NAG 9 1058	160
19	HAMPTON UNIV	L B GARRETT	LARC	W TINSLEY	NAS 1 20444	512
19	HARVARD UNIV	G MADDREA	LARC	S C WOFSY	NAS 1 18946	289
19	HARVARD UNIV	P DOTY	MSFC	M J AZIZ	NAG 8 1256	289
19	INDIANA UNIV - BLOOMINGTON	W CULPEPPER	JSC	C FOSTER	NAS 9 98121	225
19	IOWA STATE UNIV	W P WINFREE	LARC	J GRAY	NAG 1 1933	230
19	JOHNS HOPKINS UNIV	B GUYNES	MSFC	D WIRTZ	NAG 8 1377	257
19	JOHNS HOPKINS UNIV	B MOTT	GSFC	D WICKENDEN	NAG 5 7773	255
19	JOHNS HOPKINS UNIV	D B MOTT	GSFC	D K WICKENDAN	NAG 5 3452	251
19	JOHNS HOPKINS UNIV	H C BRINTON	HQ	A F CHENG	NAGW 3387	257
19	JOHNS HOPKINS UNIV	H K NAHRA	GRC	H N OGUZ	NAG 3 2118	250
19	JOHNS HOPKINS UNIV	P DOWNEY	MSFC	J L KATZ	NAG 8 1257	257
19	JOHNS HOPKINS UNIV	R HOFFMAN	GSFC	C I MENG	NAG 5 7724	255
19	JOHNS HOPKINS UNIV	S M SMITH	SSC	K O O	NAG 9 1146	257
19	KANSAS STATE UNIV	B BILLS	GSFC	A ARCHER	NCC 5 234	237
19	KENT STATE UNIV	A HEPP	GRC	D CHOWDHURY	NCC 3 734	416
19	LONGWOOD COLLEGE	A L FRIPP	LARC	P BARBER	NAG 1 1836	513
19	LOUISIANA STATE UNIV - BATON ROUGE	B A MERRITT	WFF	M CHERRY	NAG 5 5208	243
19	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIS	NAG 5 3266	295
19	MASSACHUSETTS INST OF TECH	K W OGILVIE	GSFC	A J LAZARUS	NAS 5 99181	304
19	MASSACHUSETTS INST OF TECH	N R HALL	GRC	G H MCKINLEY	NAG 3 2155	293
19	MASSACHUSETTS INST OF TECH	N R HALL	GRC	G H MCKINLEY	NCC 3 610	305
19	MASSACHUSETTS INST OF TECH	P DOTY	MSFC	R A BROWN	NAG 8 1253	302
19	MASSACHUSETTS INST OF TECH	T DCLOACH	MSFC	M FLEMING	NAG 8 1183	302
19	MASSACHUSETTS INST OF TECH	T DELOACH	GSFC	M FLEMING	NAG 8 1230	302
19	MICHIGAN STATE UNIV	J GURMAN	GSFC	R F STEIN	NAG 5 7726	313
19	MICHIGAN STATE UNIV	J GURMAN	GSFC	R F STEIN	NAG 5 8053	313
19	MICHIGAN TECHNOLOGICAL UNIV	C TALLEY	MSFC	T H COURTNEY	NAG 8 1478	315
19	MIDDLE TENNESSEE STATE UNIV	C TALLEY	MSFC	A C FRIEDLI	NAG 8 1486	466
19	MILES COLLEGE	E COTHMAN	MSFC	D B BHARWANI	NAG 8 1238	4
19	MISSISSIPPI STATE UNIV	D C CARTER	MSFC	W W WILSON	NAG 8 1158	333
19	MISSISSIPPI STATE UNIV	J A SALZMAN	GRC	R A ALTENKIRCH	NCC 3 221	334
19	MONTANA STATE UNIV	J GURMAN	GSFC	C C KANKELBORG	NAG 5 7877	342
19	NEW JERSEY INST OF TECH	J GURMAN	GSFC	H WANG	NAG 5 7837	356
19	NEW MEXICO STATE UNIV - LAS CRUCES	T VON ROSENINGE	GSFC	W R WEBBER	NAG 5 3304	364
19	NORTH CAROLINA A&T STATE UNIV	A BEAM	MSFC	A KENNEDY	NAG 8 1632	402
19	NORTH CAROLINA STATE UNIV	C TALLEY	MSFC	J BERNHOLC	NAG 8 1479	404
19	NORTH CAROLINA STATE UNIV	G MADDREA	LARC	V SAXENA	NAS 1 18944	404
19	NORTH DAKOTA STATE UNIV	J HINES	ARC	D EWERT	NCC 2 5209	407
19	NORTHEASTERN UNIV	C TALLEY	MSFC	A SACCO	NAG 8 1485	307

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
19	NORTHEASTERN UNIV	P DOTY	MSFC	A KARMA	NAG 8 1254	307
19	NORTHWESTERN UNIV	R A WILKINSON	GRC	S G BANKOFF	NAG 3 1855	208
19	OHIO STATE UNIV	A CHAIT	GRC	S TANVEER	NAG 3 1947	417
19	OHIO STATE UNIV	C TALLEY	MSFC	P K GUPTA	NAG 8 1470	420
19	OHIO STATE UNIV	D W GRIFFIN	GRC	C D ANDERECK	NAG 3 2138	417
19	OLD DOMINION UNIV	M A TALLEY	LARC	G R HOY	NAG 1 2211	517
19	OREGON STATE UNIV	B BILLS	GSFC	G D EGBERT	NAG 5 6156	433
19	PENN STATE UNIV	C TALLEY	MSFC	R M GERMAN	NAG 8 1452	448
19	PENN STATE UNIV	D L UBRAN	GRC	R A YETTER	NCC 3 718	449
19	PENN STATE UNIV	P DOTY	MSFC	J SINGH	NAG 8 1272	448
19	POLYTECH UNIV - BROOKLYN	B GUYNES	MSFC	A MYERSON	NAG 8 1370	387
19	PRAIRIE VIEW A&M UNIV	B L WHITE	HQ	T N FOGARTY	NCCW 86	474
19	PRAIRIE VIEW A&M UNIV	J D ATKINSON	JSC	T N FOGARTY	NCC 9 50	474
19	PRAIRIE VIEW A&M UNIV	R E HARTLE	GSFC	T S HUANG	NAG 5 2317	473
19	PRINCETON UNIV	BC GUYNES	MSFC	D A SAVILLE	NAG 8 969	358
19	RENSSELAER POLYTECH INST	A JACKMAN	MSFC	M B KOSS	NAG 8 1488	388
19	RENSSELAER POLYTECH INST	J C DUH	GRC	P C WAYNER	NAG 3 1834	388
19	RENSSELAER POLYTECH INST	L B JETER	MSFC	M E GLICKSMAN	NAG 8 1468	388
19	RICE UNIV	B S SINGH	GRC	P G MULET	NAG 3 1851	474
19	RICE UNIV	C L TALLEY	MSFC	N J HALAS	NAG 8 1467	476
19	RICE UNIV	D O FRAZIER	MSFC	N HALES	NAG 8 1232	476
19	RICE UNIV	R HOFFMAN	GSFC	P REIFF	NAG 5 8380	476
19	SAINT LOUIS UNIV	A NURRIDIN	HQ	N C PARTRIDGE	NGT 5 50201	335
19	SAN JOSE STATE UNIV	A BARNES	ARC	P J HAMILL	NCC 2 1060	59
19	SOUTHEASTERN LOUISIANA UNIV	J F DOWDY	MSFC	W A PARKISON	NAG 8 1206	244
19	SOUTHWEST TEXAS STATE UNIV	J F DOWDY	MSFC	S F TARSITANO	NAG 8 1367	478
19	SPELMAN COLLEGE	C MOORE	MSFC	B CARDELINO	NCC 8 144	197
19	STANFORD UNIV	C TALLEY	MSFC	R S FEIGELSON	NAG 8 1457	66
19	STANFORD UNIV	D A REISS	MSFC	R S FEIGELSON	NAG 8 1151	66
19	STANFORD UNIV	H C BRINTON	HQ	G L TYLER	NAGW 3375	66
19	STANFORD UNIV	J C DUH	GRC	G M HOMSY	NAG 3 1943	63
19	STANFORD UNIV	J GURMAN	GSFC	A B WALKER	NAG 5 7835	65
19	STANFORD UNIV	R HOFFMAN	GSFC	M WALT	NAG 5 8025	65
19	STANFORD UNIV	TKOSTIUK	HQ	G TYLER	NAGW 5116	66
19	STATE UNIV OF NY - ALBANY	M K JOY	MSFC	W M GIBSON	NAG 8 1309	390
19	STATE UNIV OF NY - STONY BROOK	C H SU	MSFC	M DUDLEY	NCC 8 164	394
19	STEVENS INST OF TECH	D MENCHAN	GSFC	T WILLIAMS	NCC 5 224	363
19	SYRACUSE UNIV	C K GARY	ARC	Q W SONG	NAG 2 1084	395
19	TAYLOR UNIV	R HOFFMAN	GSFC	H D VOSS	NAG 5 8077	229
19	THE CATHOLIC UNIV OF AMERICA	J A SLAVIN	GSFC	Y C WHANG	NAG 5 8619	165
19	THE CATHOLIC UNIV OF AMERICA	J GURMAN	GSFC	M GUATHAKURTA	NAG 5 8018	165
19	THE CATHOLIC UNIV OF AMERICA	J GURMAN	GSFC	N GOPALSWAMY	NCC 5 418	166
19	TUFTS UNIV	J GURMAN	GSFC	K R LANG	NAG 5 8115	307
19	TUFTS UNIV	P M DOTY	MSFC	R CEBE	NAG 8 1480	308
19	UNIV HOUSTON-HOUSTON	B GUYNES	MSFC	J M FRIEDMAN	NAG 8 1363	485
19	UNIV HOUSTON-HOUSTON	C P LI	JSC	D E FITZGIBBON	NAG 9 896	485
19	UNIV HOUSTON-HOUSTON	F CHANG-DIAZ	JSC	D BERING	NAG 9 904	485
19	UNIV OF MINN	E K STANSBERY	JSC	R O PEPIN	NAG 9 1007	329
19	UNIV OF MINN	P DOTY	MSFC	J DERBY	NAG 8 1258	329
19	UNIV OF MINN	R HOFFMAN	GSFC	C CATELL	NAG 5 7885	328
19	UNIV OF MINN	R J MACDOWELL	GSFC	K GOETZ	NAS 5 32994	330
19	UNIV OF TEXAS-PAN AMERICAN	A BEAM	MSFC	A LUMSDAINE	NAG 8 1634	487
19	UNIV	D POWELL	JSC	B BUTLER	NAG 9 865	488
19	UNIV	D POWELL	JSC	D FIFE	NAG 9 866	488
19	UNIV OF ALABAMA - BIRMINGHAM	B GUYNES	MSFC	L J DELVCAS	NAG 8 1162	7
19	UNIV OF ALABAMA - BIRMINGHAM	P DOTY	MSFC	J B ANDREWS	NAG 8 1228	7
19	UNIV OF ALABAMA - BIRMINGHAM	T DELOACH	MSFC	J B ANDREWS	NAS 8 39717	7
19	UNIV OF ALABAMA - HUNTSVILLE	J GURMAN	GSFC	G EMSLIE	NAG 5 7991	12
19	UNIV OF ALABAMA - HUNTSVILLE	J SWANK	GSFC	J PARADUS	NAG 5 3271	8
19	UNIV OF ALABAMA - HUNTSVILLE	P DOTY	MSFC	A FEDOSEYER	NAG 8 1229	14
19	UNIV OF ALABAMA - HUNTSVILLE	T Y MILLER	MSFC	F E ROSENBERGER	NAG 8 1161	14
19	UNIV OF ALABAMA - UNIV	T DE LOACH	MSFC	D M STEFANESCU	NAS 8 39715	20
19	UNIV OF ALASKA - FAIRBANKS	B L GILES	GSFC	G V KHAZANOV	NCC 5 327	23
19	UNIV OF ALASKA - FAIRBANKS	D O STARR	GSFC	S LI	NAG 5 6338	21
19	UNIV OF ALASKA - FAIRBANKS	R J GUNDERMAN	GRC	C E MAYER	NAS 3 26401	22
19	UNIV OF ARIZONA	A T CHAI	GRC	J JACOBS	NAG 3 1869	29

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
19	UNIV OF ARIZONA	D O STARR	GSFC	P KRIDER	NAG 5 6461	34
19	UNIV OF ARIZONA	D O STARR	GSFC	R SCHOWENGERDT	NAG 5 6339	34
19	UNIV OF ARIZONA	F N LIN	KSC	K R SRIDHAV	NAG10 249	39
19	UNIV OF ARIZONA	H C BRINTON	HQ	J LEWIS	NAGW 3400	39
19	UNIV OF ARIZONA	H V FREY	GSFC	C G CHASE	NAG 5 3018	30
19	UNIV OF ARK MAIN CAMP - FAYETTEVILLE	A TUYAHOV	GSFC	W LIMP	NAG 5 4718	43
19	UNIV OF CALIFORNIA - BERKELEY	D STARR	GSFC	D BALDOCCHI	NAG 5 8753	79
19	UNIV OF CALIFORNIA - BERKELEY	J GURMAN	GSFC	D T WOODS	NAG 5 7929	78
19	UNIV OF CALIFORNIA - BERKELEY	J GURMAN	GSFC	G H FISHER	NAG 5 7928	78
19	UNIV OF CALIFORNIA - BERKELEY	K E CYR	JSC	K NISHIZUMI	NAG 9 1051	79
19	UNIV OF CALIFORNIA - BERKELEY	K W OGLIVIE	GSFC	R P LIN	NAG 5 2815	72
19	UNIV OF CALIFORNIA - BERKELEY	P M DOTY	MSFC	J W EVANS	NAG 8 1458	79
19	UNIV OF CALIFORNIA - BERKELEY	R HOFFMAN	GSFC	F MOZER	NAG 5 8078	78
19	UNIV OF CALIFORNIA - BERKELEY	W B JOHNSON	GSFC	C W CARLSON	NAG 6 10	79
19	UNIV OF CALIFORNIA - IRVINE	B GUYNES	MSFC	A J MALKIN	NAG 8 1408	90
19	UNIV OF CALIFORNIA - IRVINE	L E MAULDIN	LARC	R CICERONE	NAS 1 19155	90
19	UNIV OF CALIFORNIA - LOS ANGELES	C R TALLEY	MSFC	A J ARDELL	NAG 8 1236	99
19	UNIV OF CALIFORNIA - LOS ANGELES	D F SHAO	GRC	V K DHIR	NAG 3 1832	92
19	UNIV OF CALIFORNIA - LOS ANGELES	E K STANSBERRY	JSC	K D MCKEEGAN	NAG 9 1020	99
19	UNIV OF CALIFORNIA - LOS ANGELES	E T ENGMAN	GSFC	C T RUSSELL	NAG 5 7721	97
19	UNIV OF CALIFORNIA - LOS ANGELES	J A NUTH	HQ	B M ZUCKERMAN	NAGW 2270	99
19	UNIV OF CALIFORNIA - LOS ANGELES	J GURMAN	GSFC	J M PAP	NAG 5 7907	97
19	UNIV OF CALIFORNIA - LOS ANGELES	J GURMAN	GSFC	R K ULRICH	NAG 5 7995	98
19	UNIV OF CALIFORNIA - LOS ANGELES	J M HICKMAN	GRC	C T RUSSELL	NAG 3 1584	92
19	UNIV OF CALIFORNIA - LOS ANGELES	M MELLOTT	GSFC	P L PRITCHETT	NAG 5 8060	98
19	UNIV OF CALIFORNIA - LOS ANGELES	P TAYLOR	GSFC	S I BREGINSKY	NAG 5 2953	93
19	UNIV OF CALIFORNIA - LOS ANGELES	T P CHARLOCK	LARC	K N LIU	NCC 1 264	100
19	UNIV OF CALIFORNIA - RIVERSIDE	M L PUSEY	GSFC	A J MALKIN	NAG 8 1164	102
19	UNIV OF CALIFORNIA - SAN DIEGO	D STARR	GSFC	D STRAMSKI	NAG 5 6466	107
19	UNIV OF CALIFORNIA - SAN DIEGO	E K STANSBERRY	JSC	M H THIEMENS	NAG 9 1002	110
19	UNIV OF CALIFORNIA - SAN DIEGO	J GURMAN	GSFC	B V JACKSON	NAG 5 7836	108
19	UNIV OF CALIFORNIA - SAN DIEGO	K R SACKSTEDER	GRC	F A WILLIAMS	NCC 3 506	112
19	UNIV OF CALIFORNIA - SAN DIEGO	M E HILL	GRC	J D GODDARD	NAG 3 1888	103
19	UNIV OF CALIFORNIA - SAN FRANCISCO	M H NEW	ARC	M A WILSON	NCC 2 993	114
19	UNIV OF CALIFORNIA - SANTA BARBARA	D STARR	GSFC	J SHI	NAG 5 6465	116
19	UNIV OF CALIFORNIA - SANTA BARBARA	J C DUH	GRC	S BAMERJEE	NAG 3 1857	114
19	UNIV OF CALIFORNIA - SANTA BARBARA	T K GLASGOW	GRC	D S CANNELL	NCC 3 551	118
19	UNIV OF CALIFORNIA - SANTA CRUZ	H V FREY	GSFC	R S ANDERSON	NAG 5 2984	120
19	UNIV OF CALIFORNIA - SANTA CRUZ	K J DES MARAIS	ARC	G RAU	NCC 2 5241	121
19	UNIV OF CHICAGO	K CYR	JSC	M HUMAYYO	NAG 9 1096	215
19	UNIV OF CHICAGO	W L QUAIDE	HQ	T ECONOMOU	NAGW 2578	216
19	UNIV OF COLORADO - BOULDER	D STARR	GSFC	A NOLIN	NAG 5 6462	138
19	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	J B RUNDLE	NAG 5 3054	132
19	UNIV OF COLORADO - BOULDER	J A NUTH III	HQ	T P SNOW	NAGW 3600	144
19	UNIV OF COLORADO - BOULDER	J GURMAN	GSFC	G DE TOMA	NAG 5 7838	142
19	UNIV OF COLORADO - BOULDER	J GURMAN	GSFC	J TOOMRE	NAG 5 7996	142
19	UNIV OF COLORADO - BOULDER	M A SMITH	ARC	L W ESPOSITO	NAG 2 1221	131
19	UNIV OF COLORADO - BOULDER	R HOFFMAN	GSFC	D BAKER	NAG 5 8247	142
19	UNIV OF DAYTON	J C DUH	GRC	K P HALLINAN	NAG 3 1919	425
19	UNIV OF DELAWARE	C R TALLEY	MSFC	M A BARTEALL	NAG 8 1242	156
19	UNIV OF DELAWARE	D SMITH	MSFC	E W KALER	NAG 8 1346	156
19	UNIV OF DENVER	D O STARR	GSFC	F J MURCRAY	NAG 5 6467	150
19	UNIV OF DENVER	D O STARR	GSFC	F J MURCRAY	NAG 5 6679	150
19	UNIV OF FLORIDA	P DOTY	MSFC	D R TALHAM	NAG 8 1244	180
19	UNIV OF FLORIDA	W J DEBWAM	LARC	R NARAYANAN	NAG 1 1474	178
19	UNIV OF HAWAII AT MANOA - HONOLULU	D O STARR	GSFC	J H PORTER	NAG 5 6340	201
19	UNIV OF HAWAII AT MANOA - HONOLULU	J MCGARRY	GSFC	D O	NAS 5 99180	205
19	UNIV OF ILLINOIS - CHICAGO CIRCLE	P DOTY	MSFC	K BREZINSKY	NAG 8 1261	217
19	UNIV OF ILLINOIS - CHICAGO CIRCLE	P DOTY	MSFC	S S CHA	NAG 8 1248	217
19	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	C R TALLEY	MSFC	J S WALKER	NCC 8 90	222
19	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	P DOTY	MSFC	J A DANTZIG	NAG 8 1249	221
19	UNIV OF IOWA	B GUYNES	MSFC	M A ARNOLD	NAG 8 1352	235
19	UNIV OF IOWA	R HOFFMAN	GSFC	D A FRANK	NAG 5 3328	233
19	UNIV OF IOWA	R HOFFMAN	GSFC	D GURNATT	NAG 5 7943	235
19	UNIV OF IOWA	R HOFFMAN	GSFC	J SCUDDER	NAG 5 8119	235
19	UNIV OF KANSAS	A J TUYAHOV	GSFC	K P PRICE	NAG 5 4990	238

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
19	UNIV OF KANSAS	W ABDALATI	GSFC	J GAUCH	NAG 5 7516	238
19	UNIV OF MARYLAND - COLLEGE PARK	A CHAIT	GRC	A DEANE	NAG 3 2139	261
19	UNIV OF MARYLAND - COLLEGE PARK	D STARR	GSFC	R PINKER	NAG 5 6464	267
19	UNIV OF MARYLAND - COLLEGE PARK	D STARR	GSFC	S LIANG	NAG 5 6459	267
19	UNIV OF MARYLAND - COLLEGE PARK	J GURMAN	GSFC	F IPAVICH	NAG 5 7678	270
19	UNIV OF MARYLAND - COLLEGE PARK	J GURMAN	GSFC	M R KUNDU	NAG 5 7901	270
19	UNIV OF MARYLAND - COLLEGE PARK	J R FISCHER	GSFC	A DEANE	NAG 5 8596	272
19	UNIV OF MARYLAND - COLLEGE PARK	K OGILVIE	GSFC	M COPLAN	NAG 5 8621	272
19	UNIV OF MARYLAND - COLLEGE PARK	K W OGILVIE	GSFC	G GLOECKLER	NAG 5 2810	262
19	UNIV OF MARYLAND - COLLEGE PARK	T T VON ROSENINGE	GSFC	G M MASON	NAG 5 2865	262
19	UNIV OF MARYLAND - COLLEGE PARK	T T VON ROSENINGE	GSFC	G M MASON	NAG 5 2963	262
19	UNIV OF MARYLAND BALTIMORE COUNTY	D O STARR	GSFC	A MARSHAK	NAG 5 6675	278
19	UNIV OF MARYLAND BALTIMORE COUNTY	D O STARR	GSFC	W MCMILLAN	NAG 5 6460	278
19	UNIV OF MASSACHUSETTS - AMHERST	D G SICKOREZ	JSC	R E VAN EMMERIK	NGT 9 32	310
19	UNIV OF MICHIGAN - ANN ARBOR	A T CHAI	GRC	V S ARPACI	NAG 3 1952	316
19	UNIV OF MICHIGAN - ANN ARBOR	D F CHAO	GRC	G TRYGGVASON	NAG 3 2162	316
19	UNIV OF MICHIGAN - ANN ARBOR	D F CHAO	GRC	J B GROTBORG	NAG 3 2196	316
19	UNIV OF MICHIGAN - ANN ARBOR	D F CHAO	GRC	W YANG	NAG 3 2211	316
19	UNIV OF MICHIGAN - ANN ARBOR	D GALLAGHER	MSFC	M LIEMOHN	NCC 8 181	323
19	UNIV OF MICHIGAN - ANN ARBOR	J LOHR	GSFC	P MAHAFFY	NAS 5 99131	322
19	UNIV OF MICHIGAN - ANN ARBOR	J S SOVEY	GRC	A D GALLIMORE	NAG 3 2216	317
19	UNIV OF MICHIGAN - ANN ARBOR	M M MELLOTT	HQ	R S LIEBERMAN	NAGW 5053	322
19	UNIV OF MISSOURI - ROLLA	R W NIEDZWIECKI	GRC	P WHITFIELD	NCC 3 343	337
19	UNIV OF MONTANA	A NURRIDIN	HQ	R J FIELD	NGT 5 50225	343
19	UNIV OF NEW MEXICO-ALBUQUERQUE	M WATSON	MSFC	M OSINSKI	NAG 8 1606	368
19	UNIV OF OKLAHOMA - NORMAN	D R WOODARD	MSFC	M C ALTAN	NAG 8 1271	431
19	UNIV OF PENNSYLVANIA	P M DOTY	MSFC	P DUCHEYNE	NAG 8 1483	452
19	UNIV OF PENNSYLVANIA	R CROMISE	MSFC	P LOLL	NAG 8 1350	452
19	UNIV OF SOUTH FLORIDA	B GUYNES	MSFC	D CAMERON	NAG 8 1381	185
19	UNIV OF SOUTH FLORIDA	G J GUNDERMAN	GRC	R E HENNING	NAS 3 26412	185
19	UNIV OF SOUTHERN CALIFORNIA	D O STARR	GSFC	M STRAMSKA	NAG 5 6512	124
19	UNIV OF SOUTHERN CALIFORNIA	J GURMAN	GSFC	W DAPPEN	NAG 5 7816	125
19	UNIV OF SOUTHERN CALIFORNIA	J GURMAN	GSFC	W DAPPEN	NAG 5 7902	125
19	UNIV OF SOUTHERN CALIFORNIA	P DOTY	MSFC	T MAXWORTHY	NAG 8 1240	125
19	UNIV OF TENNESSEE - KNOXVILLE	D M KORNEFELD	MSFC	B N ANTAR	NAG 8 1336	468
19	UNIV OF TEXAS - AUSTIN	A T CHAI	GRC	H L SWINNEY	NAG 3 1839	490
19	UNIV OF TEXAS - AUSTIN	D G SICKOREZ	JSC	B D TAPLEY	NAG 9 994	495
19	UNIV OF TEXAS - AUSTIN	F LUMPKIN	JSC	D B GOLDSTEIN	NAG 9 897	495
19	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	J C GIBEAUT	NAG 5 2954	491
19	UNIV OF TEXAS - AUSTIN	J J DEGNAN	GSFC	R J EANES	NAG 5 2146	491
19	UNIV OF TEXAS - AUSTIN	P TAYLOR	GSFC	B TAPLEY	NAG 5 3127	491
19	UNIV OF TEXAS - AUSTIN	P TAYLOR	GSFC	C R WILSON	NAG 5 3129	491
19	UNIV OF TOLEDO	B GUYNES	MSFC	G BORGOTAH	NAG 8 1380	428
19	UNIV OF UTAH	D STARR	GSFC	G MACE	NAG 5 6458	502
19	UNIV OF WASHINGTON	D O STARR	GSFC	A T JESSUP	NAG 5 6463	537
19	UNIV OF WASHINGTON	D R WOODARD	MSFC	J S WETTLAUER	NAG 8 1277	539
19	UNIV OF WASHINGTON	G MADDREA	LARC	P V HOBBS	NAS 1 18940	540
19	UNIV OF WASHINGTON	M L PUSEY	MSFC	V VOGEL	NAG 8 1149	539
19	UNIV OF WISCONSIN - MADISON	C H SU	MSFC	R J MATYI	NCC 8 165	553
19	UNIV OF WISCONSIN - MADISON	D O STARR	GSFC	S T GOWER	NAG 5 6457	549
19	UNIV OF WISCONSIN - MADISON	D R WOODARD	MSFC	J H PEREPEZKO	NAG 8 1278	551
19	UNIV OF WISCONSIN - MADISON	R L KELLEY	GSFC	D MCCAMMON	NAG 5 2720	547
19	VANDERBILT UNIV	C R TALLEY	MSFC	W HOFMEISTER	NAG 8 1275	470
19	VIRGINIA COMMONWEALTH UNIV	D R WOODARD	MSFC	S EL-SHALL	NAG 8 1276	531
19	VIRGINIA STATE UNIV	J W WILSON	LARC	J J STITH	NAG 1 765	532
19	WASHINGTON STATE UNIV	C R TALLEY	MSFC	B Q LI	NCC 8 92	543
19	WASHINGTON STATE UNIV	C TALLEY	MSFC	B Q LI	NAG 8 1477	543
19	WASHINGTON UNIV - ST	D R WOODARD	MSFC	K F KELTON	NCC 8 85	341
19	WASHINGTON UNIV - ST	E K STANSBURY	JSC	F A PODOSEK	NAG 9 1010	340
19	WASHINGTON UNIV - ST	K E CYR	JSC	C M HOHENBERG	NAG 9 1006	340
19	WAYNE STATE UNIV	R C ANDERSON	GRC	E W ROTHE	NAG 3 1800	325
19	WEST VIRGINIA UNIV	N R HALL	GRC	D F EDWARDS	NAG 3 1921	544
19	WILBERFORCE UNIV	A F HEPP	GRC	H C SMITHERMAN	NCC 3 535	429
19	WILLIAMS COLLEGE	J GURMAN	GSFC	J M PASACHOFF	NAG 5 7818	311
19	WORCESTER POLYTECH INST	C R TALLEY	MSFC	A SACCO	NAG 8 1255	312
19	WORCESTER POLYTECH INST	K E CYR	JSC	K M RUTLEDGE	NAG 9 1014	312

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
21	ALABAMA A&M UNIV	A HENDERSON	MSFC	E C TEMPLE	NAG 8 1366	1
21	ALABAMA A&M UNIV	D O FRAZIER	MSFC	M A ELSHAMY	NAG 8 1560	2
21	ALABAMA A&M UNIV	J BILBRO	MSFC	D P PARKER	NGT 8 52818	2
21	ALABAMA A&M UNIV	J DOWDY	MSFC	E TEMPLE	NAG 8 1643	2
21	ALABAMA A&M UNIV	W LOVE	MSFC	B CRAWFORD	NAG 8 1642	2
21	AUBURN UNIV	R DABNEY	MSFC	T ROPPEL	NAG 8 1628	3
21	CITY UNIV OF NY CITY COLLEGE	M MATEU	GSFC	J SCHEIN	NAG 5 3476	370
21	CLARK ATLANTA UNIV	A BEAM	MSFC	A MSEZANE	NAG 8 1493	187
21	CLARK ATLANTA UNIV	E MILNER	GRC	R MICKENS	NAG 3 2070	187
21	COLLEGE OF WILLIAM AND MARY	S L PADULA	LARC	R K KINCAID	NAG 1 1783	507
21	CORNELL UNIV	D K WEST	GSFC	S S EIKENBERRY	NAG 5 7982	383
21	ELIZABETH CITY STATE UNIV	M ANDRO	GRC	D SENGUPTA	NAG 3 2150	399
21	FAYETTEVILLE STATE UNIV	L RANDOLPH	GSFC	L EDWARDS	NGT 5 90071	400
21	GEORGE WASHINGTON UNIV	H C NEEDLEMAN	GSFC	F BAGINSKI	NAG 5 697	158
21	HOWARD UNIV	S FUNG	GSFC	R BOURGIN	NAG 5 6066	161
21	JAMES MADISON UNIV	K R MEADOWS	LARC	C D PRUETT	NAG 1 1802	513
21	JAMES MADISON UNIV	M H CARPENTER	LARC	C D PRUETT	NAG 1 2033	513
21	KANSAS STATE UNIV	P J HALEY	LARC	A G KELKAR	NAG 1 2234	236
21	KANSAS STATE UNIV	P J HALEY	LARC	A G KELKAR	NCC 1 225	237
21	LAMAR UNIV	D P BLANCHARD	JSC	J J JORDAN	NAG 9 772	472
21	MOREHOUSE COLLEGE	A BEAM	MSFC	E MCDONALD	NAG 8 1492	195
21	MORGAN STATE UNIV	B MARKHAMR	GSFC	J SMID	NAG 5 4401	259
21	MT HOLYOKE COLLEGE	M STOUTSENBARGER	GSFC	C MORROW	NAG 5 6132	307
21	NY UNIV	D S SPICER	GSFC	M BERGER	NAG 5 7583	387
21	NORTH CAROLINA STATE UNIV	W P WINFREE	LARC	M L JOYNER	NGT 1 52196	405
21	SOUTH DAKOTA SCH OF MINES & TECH	N KHAZENIE	GSFC	F CAMPONE	NAG 5 7746	464
21	SOUTHERN UNIV & A&M COLLEGE	A BEAM	MSFC	M C DUNN	NAG 8 1633	245
21	SOUTHERN UNIV & A&M COLLEGE	A JOYCE	SSC	M SUBBLEFIELD	NAG13 98013	245
21	SOUTHERN UNIV - NEW ORLEANS	N SULLIVAN	JSC	P HEATH	NAG13 52	246
21	SPELMAN COLLEGE	R LAWRENCE	GSFC	E FALCONER	NGT 5 90001	197
21	TEXAS SOUTHMOST COLLEGE	L M ARMENDARIZ	JSC	J V GARCIA	NAG 9 933	483
21	TRENHOLM STATE TECH COLLEGE	W LOVE	MSFC	C THOMPSON	NAG 8 1610	5
21	UNIV OF CALIFORNIA - BERKELEY	D J KORSMEYER	ARC	R E MALINA	NCC 2 947	81
21	UNIV OF CALIFORNIA - BERKELEY	M M WEISLOGEL	GRC	P CONCUS	NAG 3 1941	71
21	UNIV OF CALIFORNIA - SANTA CRUZ	M L FONDA	ARC	J D TRENT	NCC 2 5296	122
21	UNIV OF COLORADO - BOULDER	E A PALMER	ARC	P POISON	NCC 2 1104	146
21	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	S GOKOGLU	GRC	J D BUCKMASTER	NAG 3 1704	218
21	UNIV OF MICHIGAN - ANN ARBOR	J L THOMAS	LARC	B VAN LEER	NAG 1 869	315
21	UNIV OF TENNESSEE - KNOXVILLE	R DELOACH	LARC	C F LO	NAG 1 2185	467
21	UNIV OF TEXAS AT SAN ANTONIO	L ARMENDARIZ	JSC	M P BERRIOZABAL	NAG 9 950	500
21	UNIV OF WASHINGTON	G SOFFEN	GSFC	J BURKE	NGT 5 66	541
21	WEIZMANN INST OF SCIENCE	J C SOUTH, JR.	LARC	A BRANDT	NAG 1 1823	559
21	WESTERN ILLINOIS UNIV	L D THOMAS	MSFC	T LEE	NAG 8 1611	223
21	XAVIER UNIV - LOUISIANA	W LOVE	MSFC	R P HALE	NAG 8 1609	247
22	ADAMS STATE COLLEGE	M R LOWRY	ARC	S ROACH	NCC 2 5337	126
22	ARIZONA STATE UNIV	A VAZIRI	ARC	G M NIELSON	NAG 2 990	24
22	ARIZONA STATE UNIV	B L DI VITO	LARC	G C GANNOD	NAG 1 2241	24
22	ARIZONA STATE UNIV	G A SOFFEN	GSFC	J CAPONE	NGT 5 22	27
22	BOWIE STATE UNIV	D MENCHAN	GSFC	J LANGDON	NAG 5 7225	248
22	BOWIE STATE UNIV	J D BENNETT	GSFC	J M CAVALLLO	NAG 5 7658	248
22	BOWIE STATE UNIV	W TRUSZKOWSKI	GSFC	S SRIVASTAVA	NCC 5 235	249
22	CALIFORNIA INST OF TECH	J B HOFMAN	ARC	P MASSINA	NCC 2 954	50
22	CALIFORNIA INST OF TECH	J BREDEKAMP	GSFC	D L STERLING	NAG 5 4203	45
22	CALIFORNIA INST OF TECH	J FISCHER	GSFC	T STERLING	NAG 5 8576	49
22	CALIFORNIA INST OF TECH	M J GERALD-YAMASAKI	ARC	P SCHRODER	NCC 2 5271	50
22	CALIFORNIA STATE UNIV - FRESNO	D K RUSSELL	HQ	A AUERNHEIMER	NGT 70412	52
22	CALIFORNIA STATE UNIV - LOS ANGELES	K GUPTA	DFRC	C WU	NAG 4 130	52
22	CALIFORNIA STATE UNIV - NORTHBRIDGE	C C CORDOVA	DFRC	C CORDOVA	NAS 4 97052	54
22	CARNEGIE - MELLON UNIV	J A SCHREINER	ARC	M HEBERT	NAG 2 1233	437
22	CARNEGIE - MELLON UNIV	M H SIMS	ARC	M HERBERT	NAG 2 1137	437
22	CARNEGIE - MELLON UNIV	M H SIMS	ARC	R G SIMMONS	NAG 2 1294	437
22	CARNEGIE - MELLON UNIV	M H SIMS	ARC	R S SIMMONS	NAG 2 1266	437
22	CARNEGIE - MELLON UNIV	M R LOWRY	ARC	R G SIMMONS	NAG 2 1288	437
22	CARNEGIE - MELLON UNIV	S LAU	ARC	S F SMITH	NCC 2 976	439
22	CARNEGIE - MELLON UNIV	T L ROUGH	ARC	C GLYMOUR	NCC 2 1026	439
22	CARNEGIE - MELLON UNIV	T L ROUSH	ARC	M HEBERT	NCC 2 5319	439

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
22	CARNEGIE - MELLON UNIV	T L ROUSH	ARC	M HERBERT	NCC 2 5266	439
22	CAYUGA COUNTY COMM COLLEGE	W CAMPBELL	GSFC	R BROWN	NAG 5 7473	369
22	CITY UNIV OF NY CITY COLLEGE	J HARRINGTON	GSFC	S AUSTIN	NCC 5 98	371
22	CITY UNIV OF NY CITY COLLEGE	J TILTON	GSFC	G WOLBERG	NAG 5 7129	370
22	CLEMSON UNIV - CLEMSON	C MOBARRY	GSFC	W E LIGON	NAG 5 3835	460
22	CLEMSON UNIV - CLEMSON	G A SOFFEN	GSFC	LIGON	NGT 5 78	461
22	CLEMSON UNIV - CLEMSON	G A SOFFEN	GSFC	W B LIGON	NGT 5 21	461
22	CLEMSON UNIV - CLEMSON	G A SOFFEN	GSFC	W LIGON	NGT 5 85	461
22	CLEMSON UNIV - CLEMSON	J R LEKASHMAN	ARC	R M GEIST	NAG 2 1107	459
22	CLEMSON UNIV - CLEMSON	K MOE	GSFC	W LIGON	NAG 5 8605	461
22	CLEVELAND STATE UNIV	G FOLLEN	GRC	J SCOEFFER	NCC 3 572	414
22	COLLEGE OF WILLIAM AND MARY	F O HUCK	LARC	S K PARK	NCC 1 258	508
22	COLLEGE OF WILLIAM AND MARY	P W GOODE	LARC	A S MINER	NGT 1 52195	508
22	COLLEGE OF WILLIAM AND MARY	P W GOODE	LARC	G CIARDO	NAG 1 2168	507
22	CORNELL UNIV	R LAWRENCE	GSFC	K HOVER	NGT 5 90070	385
22	CORNELL UNIV	S LAU	ARC	F B SCHNEIDER	NAG 2 893	379
22	DINE COLLEGE	L K ALDERETE	ARC	A SAM	NAG 2 6012	27
22	DUKE UNIV	K P GOLDEN	ARC	M L LITTMAN	NGT 2 52248	398
22	EAST TENNESSEE STATE UNIV	F A PATTERSON-HINE	ARC	J HENRY	NCC 2 5242	465
22	ELIZABETH CITY STATE UNIV	G D REESE	LARC	E LAWRENCE	NAG 1 2229	399
22	ELIZABETH CITY STATE UNIV	J BENNETT	GSFC	L HAYDEN	NCC 5 121	400
22	FAYETTEVILLE STATE UNIV	F SIX	MSFC	L EDWARDS	NGT 5 90055	400
22	FLA INTERNATIONAL UNIV	G BUCKINGHAM	KSC	J A JACKO	NGT10 52614	169
22	FLA INTERNATIONAL UNIV	G BUCKINGHAM	KSC	J JACKO	NAG10 229	168
22	FLA INTERNATIONAL UNIV	S ROBERTS	KSC	I BECCERA-FERNANDEZ	NAG10 259	168
22	FLORIDA ATLANTIC UNIV	S YASSINI	ARC	T G KHOSGOFTAR	NCC 2 1141	171
22	FLORIDA INST OF TECH	J L BRESINA	ARC	R A MORRIS	NAG 2 1171	171
22	GEORGE MASON UNIV	J GREBOWSKY	GSFC	P Y WANG	NAG 5 4868	509
22	GEORGE MASON UNIV	J J REHDER	LARC	T ARCISZEWSKI	NAG 1 1929	509
22	GEORGE MASON UNIV	J LEMOIGNE	GSFC	T EL-GHAZAWI	NAG 5 8415	509
22	GEORGE MASON UNIV	K MOE	GSFC	R YANG	NAG 5 8607	509
22	GEORGE MASON UNIV	T AMES	GSFC	H GOMAA	NCC 5 267	510
22	GEORGE WASHINGTON UNIV	G A SOFFEN	GSFC	M H LOEW	NGT 5 30	160
22	GEORGIA INST OF TECH	A W STOFFEL	GSFC	C M MITCHELL	NAG 5 2227	190
22	GEORGIA INST OF TECH	C M FALSETTI	ARC	I F AKYILDIZ	NAG 2 1262	190
22	GEORGIA INST OF TECH	F J MONTEGANI	GRC	E W ZEGURA	NGT 3 52329	193
22	GEORGIA INST OF TECH	G H MUCKLOW	HQ	K SCHWAN	NAGW 3886	191
22	GEORGIA INST OF TECH	G SOFFEN	GSFC	M SMITH	NGT 5 31	193
22	GEORGIA INST OF TECH	P C SCHUTTE	LARC	A R PRITCHETT	NAG 1 2175	189
22	HOWARD UNIV	H E KEA	GSFC	J TRIMBLE	NAG 5 7670	161
22	HOWARD UNIV	W TRUSZKOWSKI	GSFC	J TRIMBLE	NAG 5 8790	161
22	INDIANA UNIV	T BABRAUCKAS	GRC	A EGER	NAG 3 2260	223
22	INDIANA UNIV - BLOOMINGTON	M E LIVINGSTON	ARC	D B LEAKE	NCC 2 1035	225
22	IOWA STATE UNIV	M H SIMS	ARC	G THOMAS	NCC 2 5216	232
22	JOHNS HOPKINS UNIV	G H MUCKLOW	GSFC	S HAWKINS	NAG 5 8688	257
22	KANSAS STATE UNIV	L RUPE	KSC	J UHLERIK	NGT10 52616	237
22	KANSAS STATE UNIV	M R LOWRY	ARC	D A SCHMIDT	NAG 2 1209	236
22	LOUISIANA STATE UNIV - BATON ROUGE	S SAINI	ARC	A NAKANO	NAG 2 1248	242
22	LOUISIANA STATE UNIV - BATON ROUGE	S SAINI	ARC	A NAKANO	NCC 2 5320	243
22	LOUISIANA STATE UNIV - BATON ROUGE	S SAINI	ARC	R K KALIA	NAG 2 1318	242
22	MASSACHUSETTS INST OF TECH	D E ECKMARDT	LARC	N LEVESON	NAG 1 2239	291
22	MASSACHUSETTS INST OF TECH	D L KAO	ARC	R HAIMES	NCC 2 985	305
22	MASSACHUSETTS INST OF TECH	K GUPTA	DFRC	J PERAIRE	NAG 4 105	293
22	MASSACHUSETTS INST OF TECH	M M ESHOW	ARC	D N JACKSON	NAG 2 1338	292
22	MASSACHUSETTS INST OF TECH	S LAU	ARC	L R YOUNG	NCC 2 570	304
22	MASSACHUSETTS INST OF TECH	W CLANCEY	ARC	J CONNOR	NGT 2 52256	306
22	MASSACHUSETTS INST OF TECH	Y K LIU	ARC	R L RIVEST	NAG 2 1136	292
22	MICHIGAN STATE UNIV	A HUSAIN	NMO	M MOCH	NCC 7 2	314
22	MICHIGAN STATE UNIV	C R MERCER	GRC	A K JAIN	NAG 3 1749	312
22	MICHIGAN TECHNOLOGICAL UNIV	J R FISCHER	GSFC	D MERKEY	NAG 5 8796	315
22	MISSISSIPPI STATE UNIV	S SAINI	ARC	S SKJELLUM	NAG 2 1211	333
22	MORGAN STATE UNIV	J BENNETT	GSFC	W LUPTON	NCC 5 122	260
22	NEW MEXICO STATE UNIV - LAS CRUCES	R E STREITMATTER	GSFC	S STOCHAJ	NCC 5 422	366
22	NORTH CAROLINA A&T STATE UNIV	W TRUSZKOWSKI	GSFC	A ESTERLINE	NAG 5 4102	401
22	NORTH CAROLINA STATE UNIV	P S GHUMAN	GSFC	C GLOSTER	NAG 5 7942	404
22	NORTHWESTERN UNIV	A GRADY	ARC	V E TAYLOR	NCC 2 1013	210

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
22	NORTHWESTERN UNIV	M H SHIRLEY	ARC	K D FORBUS	NCC 2 1017	211
22	OHIO STATE UNIV	R J KERCZEWSKI	GRC	Y F ZHENG	NAG 3 2256	418
22	OHIO STATE UNIV	T C VONDEAK	GRC	A JAIN	NAS 3 97198	421
22	OHIO UNIV	J M SEATON	LARC	R L WILLIAMS	NAG 1 2099	422
22	OLD DOMINION UNIV	E SIMAN-TOV	LARC	R MUKKAMALA	NAG 1 2143	517
22	OLD DOMINION UNIV	M M LITTLE	LARC	K MALY	NAS 1 99160	518
22	OLD DOMINION UNIV	N D MURRAY	LARC	K MALY	NAG 1 908	515
22	OLD DOMINION UNIV	R W WILLS	LARC	D MUKKAMALA	NAG 1 1853	516
22	OLD DOMINION UNIV	R W WILLS	LARC	K MALY	NAG 1 2037	516
22	OREGON GRADUATE INST OF SCI & TECH	W F BROOKS	ARC	D HAMMERSTROM	NAG 2 1268	431
22	OREGON STATE UNIV	C H SCHULBACH	ARC	C M PANCAKE	NAG 2 1123	432
22	OREGON STATE UNIV	K MOE	GSFC	M S ABBOTT	NAG 5 8400	434
22	OREGON STATE UNIV	M J LEON	ARC	R D DRYDEN	NAG 2 1143	432
22	PENN STATE UNIV	A PATTERSON-HINE	ARC	D C LANG	NAG 2 1312	442
22	PENN STATE UNIV	A PATTERSON-HINE	ARC	D L HALL	NAG 2 1182	442
22	PENN STATE UNIV	L S TONE	ARC	R KASTRUI	NAG 2 1152	442
22	PENN STATE UNIV	T J BARTH	ARC	J XU	NAG 2 1236	442
22	PRAIRIE VIEW A&M UNIV	J BENNETT	GSFC	J R WILLIAMS	NCC 5 115	474
22	PURDUE UNIV	A NURRIDIN	HQ	L H JAMIESON	NGT 5 50222	229
22	RICE UNIV	J R FISCHER	GSFC	K KENNEDY	NAG 5 2736	474
22	RUTGERS STATE UNIV - PISCATAWAY	M R LOWRY	ARC	S AMAREL	NAG 2 1234	360
22	RUTGERS STATE UNIV - PISCATAWAY	R PETRE	GSFC	J HUGHES	NAG 5 6420	361
22	SAN FRANCISCO STATE UNIV	P R GRAMS	ARC	H SHAHNASSER	NCC 2 5301	57
22	SAN FRANCISCO STATE UNIV	P R GRAMS	ARC	P SHAHNASSER	NCC 2 5180	57
22	SAN JOSE STATE UNIV	K SWANSON	ARC	P HAMILL	NCC 2 5248	60
22	SAN JOSE STATE UNIV	M E LIVINGSTON	ARC	R FATOOHI	NCC 2 1015	58
22	SAN JOSE STATE UNIV	T A LASINSKI	ARC	R FATOOHI	NCC 2 1071	59
22	SOUTH CAROLINA STATE UNIV	J BENNETT	GSFC	D K WALTER	NCC 5 116	463
22	SOUTHERN UNIV & A&M COLLEGE	D F NOGA	GRC	D MOREMAN	NAG 3 2076	244
22	SOUTHERN UNIV & A&M COLLEGE	G S LEE	ARC	S K TRIVEDI	NAG 2 1159	244
22	SOUTHERN UNIV & A&M COLLEGE	H L THEISS	HQ	E W HINDS	NAGW 4013	245
22	SOUTHERN UNIV & A&M COLLEGE	P NORVIG	ARC	C DEBESSONET	NAG 2 1273	244
22	SOUTHERN UNIV & A&M COLLEGE	R R DAPICE	ARC	C DEBASSONET	NAG 2 1162	244
22	STANFORD UNIV	A A VAZIRI	ARC	L HESSELINK	NAG 2 911	61
22	STANFORD UNIV	C R STOKER	ARC	B B LUSIGNAN	NCC 2 5272	68
22	STANFORD UNIV	D G SOCKOREZ	JSC	O KHATIB	NGT 9 6	70
22	STANFORD UNIV	D J KORSMEYER	ARC	L HESSELINK	NCC 2 5269	68
22	STANFORD UNIV	E M HUFF	ARC	T H MENG	NAG 2 1065	62
22	STANFORD UNIV	H THOMAS	ARC	S M ROCK	NAG 2 1330	62
22	STANFORD UNIV	J A KURIEN	ARC	R E FIKES	NAG 2 1337	62
22	STANFORD UNIV	K J SWANSON	ARC	B J CANTWELL	NCC 2 5286	69
22	STANFORD UNIV	M GERALD-YAMAASAKI	ARC	H GARCIA-MOLINA	NCC 2 5247	68
22	STANFORD UNIV	M GERALD-YAMASAKI	ARC	H GARCIA-MOLINA	NCC 2 5278	69
22	STANFORD UNIV	M H SIMS	ARC	S M ROCK	NCC 2 1004	67
22	STANFORD UNIV	P S MINER	LARC	D L DILL	NAS 1 98139	67
22	STANFORD UNIV	S LAU	ARC	D L DILL	NAG 2 891	61
22	STANFORD UNIV	S LAU	ARC	Z MANNA	NAG 2 892	61
22	STANFORD UNIV	W J CLANCY	ARC	L J LEIFFER	NAG 2 1257	62
22	STATE UNIV OF NY - BUFFALO	D VAN DREI	GRC	P DOWD	NAG 3 1812	391
22	STATE UNIV OF NY - STONY BROOK	D WEST	GSFC	F SWETSY	NAG 5 8377	393
22	STATE UNIV OF NY - STONY BROOK	M YAMASAKI	ARC	A KAUFMAN	NCC 2 5231	394
22	TENNESSEE STATE UNIV	J BENNETT	GSFC	W SMITH	NCC 5 96	466
22	TENNESSEE STATE UNIV	K BALLARD	KSC	S SINGH DEVGAN	NAG10 217	466
22	TENNESSEE STATE UNIV	K J SWANSON	ARC	G W HENRY	NCC 2 977	466
22	TEXAS TECH UNIV	C K GARY	ARC	D J MEHRL	NAG 2 1077	484
22	THE UNIV OF CENTRAL FLORIDA	D HOLLAND	HQ	D MOSHELL	NGT 51402	177
22	THE UNIV OF CENTRAL FLORIDA	T BARTH	KSC	W W SWART	NAG10 141	176
22	TUFTS UNIV	J F DOWDY	MSFC	K P LENTL	NAG 8 1311	308
22	TULANE UNIV	K MOE	GSFC	C KOUTSOUGERAS	NAG 5 8570	246
22	UNIV HOUSTON-HOUSTON	R J SAVELY	JSC	R B LOFTIN	NAG 9 930	485
22	UNIV HOUSTON-HOUSTON	R SAVELY	JSC	B LOFTIN	NAG 9 985	485
22	UNIV OF MINN	J BREDEKAMP	GSFC	P M HUMPHREYS	NAG 5 3998	327
22	UNIV OF MINN	J R LEKASHMAN	ARC	M T O	NAG 2 1151	326
22	UNIV OF MINN	J R LEKASHMAN	ARC	M T O	NAG 2 1308	326
22	UNIV OF MINN	R W BUTLER	LARC	M E HEMDAHL	NAG 1 2242	326
22	UNIV OF MINN	S SAINI	ARC	V KAMAR	NCC 2 5317	330

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
22	UNIV OF MINN	S SAINI	ARC	V KUMAR	NCC 2 5268	330
22	UNIV OF ALABAMA - HUNTSVILLE	J BREDEKAMP	GSFC	D G RICHARDS	NAG 5 4003	9
22	UNIV OF ALABAMA - HUNTSVILLE	J P ZIEBARTH	ARC	S J GRAVES	NAG 2 6037	8
22	UNIV OF ALABAMA - HUNTSVILLE	M GOLIGHTLY	JSC	D F SMART	NAG 9 1011	15
22	UNIV OF ALABAMA - HUNTSVILLE	R KREIDER	GSFC	S GRAVES	NAG 5 4913	10
22	UNIV OF ALABAMA - HUNTSVILLE	R S MCGINNIS	HQ	S GRAVES	NAGW 4259	15
22	UNIV OF ARIZONA	D WEST	GSFC	T FLEMMING	NAG 5 3238	30
22	UNIV OF ARIZONA	J BREDEKAMP	GSFC	D MERENYI	NAG 5 4001	31
22	UNIV OF CALIFORNIA - BERKELEY	B J GLASS	ARC	L A ZADEH	NAG 2 1177	71
22	UNIV OF CALIFORNIA - BERKELEY	D J KORSMEYER	ARC	R F MALINA	NCC 2 966	81
22	UNIV OF CALIFORNIA - BERKELEY	J BREDEKAMP	GSFC	G SMOOT	NAG 5 3941	73
22	UNIV OF CALIFORNIA - BERKELEY	LOWRY	ARC	R A NEWTON	NCC 2 5287	81
22	UNIV OF CALIFORNIA - BERKELEY	M D ROSS	ARC	S S SASTREY	NGT 2 52259	82
22	UNIV OF CALIFORNIA - BERKELEY	M M SIMS	ARC	L W STARK	NAG 2 1135	71
22	UNIV OF CALIFORNIA - BERKELEY	M R LOWREY	ARC	T A HENZINGER	NAG 2 1214	71
22	UNIV OF CALIFORNIA - BERKELEY	M R LOWRY	ARC	A AOLEM	NAG 2 1210	71
22	UNIV OF CALIFORNIA - BERKELEY	R KRIEDER	GSFC	M STONEBRAKER	NAG 5 6587	76
22	UNIV OF CALIFORNIA - DAVIS	A VAZIRI	ARC	B HAMANN	NAG 2 1216	84
22	UNIV OF CALIFORNIA - DAVIS	C M FALSETTI	ARC	M BISHOP	NAG 2 1251	84
22	UNIV OF CALIFORNIA - IRVINE	J DORBAND	GSFC	I SCHERSON	NAG 5 3692	89
22	UNIV OF CALIFORNIA - LOS ANGELES	C M FALSETTI	ARC	M GERLA	NAG 2 1249	92
22	UNIV OF CALIFORNIA - LOS ANGELES	R KREIDER	GSFC	R MUNTZ	NAG 5 6724	97
22	UNIV OF CALIFORNIA - LOS ANGELES	T J BARTH	ARC	T F CHAN	NAG 2 1238	92
22	UNIV OF CALIFORNIA - SAN DIEGO	A NURRIDIN	HQ	E MJOLSESS	NGT 5 50169	113
22	UNIV OF CALIFORNIA - SAN DIEGO	C H SCHULBACK	ARC	F BERMAN	NGT 2 52251	113
22	UNIV OF CALIFORNIA - SAN DIEGO	D A HOLLAND	HQ	R C PUETTER	NAGW 4726	110
22	UNIV OF CALIFORNIA - SAN DIEGO	J BREDEKAMP	GSFC	D C PUETTER	NAG 5 3944	104
22	UNIV OF CALIFORNIA - SANTA BARBARA	G H MUCKLOW	HQ		NAGW 3951	117
22	UNIV OF CALIFORNIA - SANTA BARBARA	K MOE	GSFC	L L HILL	NAG 5 8542	117
22	UNIV OF CALIFORNIA - SANTA CRUZ	A VAZIRI	ARC	A PANG	NCC 2 5281	122
22	UNIV OF CALIFORNIA - SANTA CRUZ	A VAZIRI	ARC	A VANGELDER	NAG 2 1239	119
22	UNIV OF CALIFORNIA - SANTA CRUZ	A VAZIRI	ARC	J WILHELMS	NAG 2 991	119
22	UNIV OF COLORADO - BOULDER	G MUCKLOW	GSFC	E R HANSEN	NAG 5 8643	143
22	UNIV OF COLORADO - BOULDER	J BREDEKAMP	GSFC	M M LIGHTNER	NAG 5 3997	134
22	UNIV OF COLORADO - BOULDER	K MOE	GSFC	R L WEAVER	NAG 5 8399	143
22	UNIV OF COLORADO - BOULDER	K R MCDONALD	GSFC	W J EMERY	NAG 5 2577	132
22	UNIV OF COLORADO - BOULDER	R OLIVERSEN	GSFC	N SCHNEIDER	NAG 5 6909	139
22	UNIV OF CONNECTICUT	A F PATTERSON-HINE	ARC	K R PATTIPATI	NCC 2 5328	152
22	UNIV OF CONNECTICUT	A PATTERSON-HIN	ARC	K R PATTIPATI	NCC 2 5245	152
22	UNIV OF FLORIDA	A T LEE	JSC	Y H LEE	NCC 9 84	181
22	UNIV OF GREENWICH	S SAINI	ARC	M CROSS	NAG 2 1339	558
22	UNIV OF HAWAII AT MANOA - HONOLULU	J R FISCHER	GSFC	D Y YUN	NAG 5 2486	199
22	UNIV OF HOUSTON - CLEAR LAKE	R T SAVELY	JSC	E T DICKERSON	NCC 9 30	489
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	A W STOFFEL	GSFC	P M JONES	NAG 5 2244	219
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	C CARLISLE	GSFC	M FOLK	NAG 5 2040	219
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	G A SOFFEN	GSFC	P SAYLOR	NGT 5 84	223
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J BREDEKAMP	GSFC	M MCGRATH	NAG 5 4228	220
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	K A FREEMAN	ARC	K NAHRSTEDT	NAG 2 1250	218
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	K A SMITH	LARC	R K IYER	NAG 1 613	218
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	K G STEVENS	ARC	D A REED	NGT 2 52231	222
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R KREIDER	GSFC	M FOLK	NAG 5 6723	220
22	UNIV OF IOWA	M H SIMS	ARC	G W THOMAS	NAG 2 1167	233
22	UNIV OF IOWA	M SIMS	ARC	G W THOMAS	NAG 2 1296	233
22	UNIV OF MARYLAND - COLLEGE PARK	C ROUFF	GSFC	B SHNEIDERMAN	NAG 5 7126	268
22	UNIV OF MARYLAND - COLLEGE PARK	C Y CHEUNG	GSFC	N ROUSSOPOULOS	NAG 5 2926	262
22	UNIV OF MARYLAND - COLLEGE PARK	D E JAMISON	GSFC	V R BASILI	NCC 5 170	275
22	UNIV OF MARYLAND - COLLEGE PARK	H PARK	GSFC	C F MARTIN	NCC 5 353	276
22	UNIV OF MARYLAND - COLLEGE PARK	J BREDEKAMP	GSFC	D C GOODRICH	NAG 5 4313	265
22	UNIV OF MARYLAND - COLLEGE PARK	R CROMP	GSFC	D NETANYAHU	NAG 5 6699	268
22	UNIV OF MARYLAND BALTIMORE COUNTY	A ROBERTS	GSFC	D S EBERT	NCC 5 361	279
22	UNIV OF MARYLAND BALTIMORE COUNTY	J R LEKASHMAN	ARC	E L MILLER	NAG 2 1094	278
22	UNIV OF MARYLAND BALTIMORE COUNTY	M S BURRELL	GSFC	L M HAYDEN	NGT 5 48	280
22	UNIV OF MICHIGAN - ANN ARBOR	A NURRIDIN	HQ	M WELLMAN	NGT 5 50199	324
22	UNIV OF MICHIGAN - ANN ARBOR	G BURKINGHAM	KSC	A PRAKASH	NGT10 52613	325
22	UNIV OF NEVADA - LAS VEGAS	J BREDEKAMP	GSFC	D LATIFI	NAG 5 3994	346
22	UNIV OF NEW ORLEANS	A JOYCE	SSC	E RUSSO	NGT13 52714	247

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
22	UNIV OF NORTH CAROLINA - CHAPEL HILL	D WEST	GSFC	A C THOMPSON	NAG 5 3100	406
22	UNIV OF NORTH CAROLINA - CHAPEL HILL	H THOMAS	ARC	G BISHOP	NGT 2 52254	407
22	UNIV OF NORTH DAKOTA	D R PLUMER	GRC	M S ALI	NAG 3 1911	408
22	UNIV OF NOTRE DAME	D FISHER	DFRC	R NELSON	NAG 4 123	230
22	UNIV OF SOUTHERN CALIFORNIA	M H SIMS	ARC	M MATARIC	NAG 2 1264	123
22	UNIV OF SOUTHERN CALIFORNIA	P E FRIEDLAND	ARC	S LAU	NAG 2 864	123
22	UNIV OF SOUTHWESTERN LOUISIANA	W CAMPBELL	GSFC	D PISSINOU	NAG 5 7127	247
22	UNIV OF TENNESSEE - KNOXVILLE	J FISCHER	GSFC	J DONGARRA	NAG 5 8773	468
22	UNIV OF TENNESSEE - KNOXVILLE	S DAINI	ARC	J DONGARRA	NCC 2 5313	469
22	UNIV OF TENNESSEE - KNOXVILLE	S SAINI	ARC	J DONGARRA	NAG 2 1218	467
22	UNIV OF TENNESSEE - KNOXVILLE	S SAINI	ARC	J DONGARRA	NCC 2 5274	469
22	UNIV OF TENNESSEE - KNOXVILLE	S SAINI	ARC	J DONGARRA	NCC 2 5285	469
22	UNIV OF TENNESSEE - KNOXVILLE	S SAINI	ARC	J DONGARRA	NCC 2 5310	469
22	UNIV OF TENNESSEE - KNOXVILLE	S SAINI	ARC	J DONGARRA	NCC 2 5312	469
22	UNIV OF TENNESSEE - KNOXVILLE	SSAINI	ARC	J DONGARRA	NCC 2 5284	469
22	UNIV OF TEXAS - AUSTIN	G A SOFFEN	GSFC	J FAMIGLIETTI	NGT 5 33	496
22	UNIV OF TEXAS - AUSTIN	J R FISHER	GSFC	R A VAN DE GEI JN	NAG 5 2497	491
22	UNIV OF TEXAS - AUSTIN	M GERALD-YAMASAKI	ARC	C BAJAJ	NCC 2 5276	496
22	UNIV OF TEXAS - AUSTIN	R KREIDER	GSFC	D FUSSELL	NAG 5 6596	493
22	UNIV OF TEXAS - AUSTIN	R S MCGINNIS	HQ	D FUSSELL	NAGW 4247	495
22	UNIV OF TEXAS - AUSTIN	R SAVELY	JSC	C C STOUT	NAG 9 745	494
22	UNIV OF TEXAS - EL PASO	J BENNETT	GSFC	M KOLITSKY	NCC 5 97	499
22	UNIV OF TEXAS - EL PASO	M R LOWRY	ARC	A Q GATES	NAG 2 1012	498
22	UNIV OF TOLEDO	G J FOLLEN	GRC	A A AFJEH	NAG 3 2177	426
22	UNIV OF TOLEDO	W K GERDES	LARC	A AETEH	NAG 1 2244	426
22	UNIV OF UTAH	P S MINER	LARC	M D JONES	NGT 1 52189	503
22	UNIV OF VIRGINIA	D E ECKHARDT	LARC	J C KNIGHT	NAG 1 1123	521
22	UNIV OF VIRGINIA	K MOE	GSFC	J C FRENCH	NAG 5 8585	525
22	UNIV OF WASHINGTON	A ROBERTS	GSFC	T FURNESS	NCC 5 363	541
22	UNIV OF WASHINGTON	E A PALMER	ARC	N G LEVESON	NCC 2 982	540
22	UNIV OF WEST FLORIDA	M H SHIRLEY	ARC	N SURI	NCC 2 1016	186
22	UNIV OF WISCONSIN - MADISON	C H SCHULBACH	ARC	B P MILLER	NGT 2 52227	553
22	UNIV OF WISCONSIN - MADISON	G H MUCKLOW	HQ	D J DEWITT	NAGW 3895	552
22	UNIV OF WISCONSIN - MADISON	J BREDEKAMP	GSFC	D T SANDERS	NAG 5 3943	548
22	UNIV OF WISCONSIN - MADISON	K WITCHER	SSC	J T YOUNG	NAS13 98007	552
22	UNIV OF WISCONSIN - MADISON	M GERALD-YAMASAKI	ARC	P CAO	NCC 2 5260	553
22	UNIV OF WISCONSIN - MADISON	W E JOHNSTON	ARC	M LIVNY	NCC 2 5323	553
22	UNIV OF WYOMING	D G SICKOREZ	JSC	R	NGT 9 36	556
22	UNIV OF WYOMING	S LAU	ARC	J V BALLEEN	NAG 2 877	555
22	VA POLYTECH INST & ST UNIV	J M SEATON	LARC	G J OGLE	NGT 1 52224	531
22	VALENCIA COMM COLLEGE	G BUCKINGHAM	KSC	K WOODBERRY	NAG10 165	186
22	VANDERBILT UNIV	T F ZOLADZ	MSFC	T A BAPTY	NAG 8 1298	470
22	WEST VIRGINIA UNIV	M R LOWRY	ARC	J R CALLAHAN	NAG 2 1134	544
22	WEST VIRGINIA UNIV	T WILSON	ARC	E E GOTTLIEB	NCC 2 6009	544
22	WINSTON-SALEM STATE UNIV	G FOLLEN	GRC	A RADENSKI	NAG 3 2011	407
22	WRIGHT STATE UNIV	W J CLANCEY	ARC	V L SHALIN	NAG 2 1237	429
29	ALABAMA A&M UNIV	R TILLEY	KSC	M ELSHAMY	NAG10 245	2
29	ARIZONA STATE UNIV	P W GOODE	LARC	M P MIGNOLET	NAG 1 2233	24
29	CARNEGIE - MELLON UNIV	C H SCHULBACH	ARC	T C MOWRY	NAG 2 1230	437
29	CASE WESTERN RESERVE UNIV	C R MERCER	GRC	S H IZEN	NAG 3 2210	409
29	CHRISTOPHER NEWPORT UNIV	D M BUSHNELL	LARC	P DOMINQUZE	NAG 1 2210	506
29	CHRISTOPHER NEWPORT UNIV	R D RHEW	LARC	J M HEREFORD	NAG 1 1994	506
29	CITY UNIV	D CENTENO-GOMEZ	GRC	G MELENDEZ-DELANEY	NAG 3 2057	369
29	DINE COLLEGE	L ARMENDARIZ	JSC	M C BAUER	NAG 9 968	27
29	DREXEL UNIV	J R FISCHER	GSFC	B FRYXELL	NAG 5 6029	440
29	FAYETTEVILLE STATE UNIV	R F LAWRENCE	GRC	L EDWARDS	NAG 3 2072	400
29	FLA INTERNATIONAL UNIV	R J MCKINNEY	KSC	G A ROIG	NAG10 268	168
29	FLORIDA A&M UNIV	T GUO	GRC	E G COLLINS	NAG 3 2193	169
29	FLORIDA MEMORIAL COLLEGE	R MC KINNEY	KSC	H HUISSO	NAG10 247	172
29	FURMAN UNIV	F SIX	MSFC	K C ABERNETHY	NAG 8 1101	462
29	GEORGE MASON UNIV	A J TUYAHOV	HQ	M KUFATOS	NGT 30330	510
29	GEORGE WASHINGTON UNIV	J G GRIGGS	ARC	M KRUPSAW	NGT 2 52223	160
29	GEORGIA INST OF TECH	J ATKINSON	JSC	A O ESGOBUE	NAG 9 726	191
29	GEORGIA INST OF TECH	P W GOODE	LARC	A J CALISE	NAG 1 2243	189
29	GEORGIA INST OF TECH	T BENTSEN	HQ	W D HUNT	NAGW 2753	191
29	GEORGIA STATE UNIV	R TELLEY	KSC	R PATTERSON	NAG10 235	195

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
29	JOHNS HOPKINS UNIV	J BREDEKAMP	GSFC	G MURPHY	NAG 5 8548	256
29	JOHNS HOPKINS UNIV	J R FISCHER	GSFC	P OLSON	NCC 5 147	259
29	JOHNSON C	J R SCOTT	GRC	J O ADEYEYE	NAG 3 2022	400
29	KENT STATE UNIV	L SHAW	GRC	S RYAN	NGT 3 52309	416
29	LINCOLN UNIV - PA	D MENCHAN	GSFC	D LANGLEY	NGT 5 59	441
29	MASSACHUSETTS INST OF TECH	D R ISSACSON	ARC	A R ODONI	NAG 2 1128	292
29	MASSACHUSETTS INST OF TECH	J L THOMAS	LARC	D L DARMOFAL	NAS 1 99126	303
29	MORGAN STATE UNIV	D MENCHAN	GSFC	D WHITE	NAG 5 7623	259
29	NORTH CAROLINA A&T STATE UNIV	G S LEE	ARC	A C ESTERLINE	NAG 2 1150	401
29	OLD DOMINION UNIV	F FARASSAT	LARC	J TWEED	NAG 1 1940	516
29	OLD DOMINION UNIV	N D MELSON	LARC	D E KEYES	NAG 1 1692	516
29	PENN STATE UNIV	E L DUKE	DFRC	B GRABOWSKI	NAG 4 113	443
29	RICE UNIV	L L GREEN	LARC	A CARLE	NCC 1 234	477
29	RICE UNIV	L L GREEN	LARC	A CARLE	NCC 1 236	477
29	SAVANNAH STATE UNIV	R M C KINNEY	KSC	T EATON	NAG10 250	196
29	SOUTHERN UNIV & A&M COLLEGE	G JERMAN	MSFC	J DYER	NCC 8 156	245
29	TEMPLE UNIV	B C DRAKE	GSFC	S K BISWAS	NAG 5 6238	451
29	TEMPLE UNIV	B C DRAKE	GSFC	S K BISWAS	NAG 5 8649	451
29	TEXAS A&M UNIV-KINGSVILLE	C NOLA	MSFC	B SCHREVR	NAG 8 1297	483
29	THE UNIV OF CENTRAL FLORIDA	C M CLESKEY	KSC	R HOFER	NCA10 35	177
29	UNIV OF MINN	A NURRIDIN	HQ	L RUDNICK	NGT 5 50123	331
29	UNIV OF AKRON	J R SCOTT	GRC	D I HAIHARAN	NAG 3 2182	423
29	UNIV OF ALABAMA - HUNTSVILLE	F MAYHALL	MSFC	W MORSE	NCC 8 178	17
29	UNIV OF CALIFORNIA - BERKELEY	J BREDEKAMP	GSFC	D L BUZASI	NAG 5 8489	79
29	UNIV OF CALIFORNIA - DAVIS	J FLORES	ARC	J J CHATTOT	NGT 2 52241	88
29	UNIV OF CALIFORNIA - LOS ANGELES	J BREDEKAMP	GSFC	D L BUZASI	NAG 5 8447	98
29	UNIV OF CALIFORNIA - LOS ANGELES	J R FISCHER	GSFC	C MECHOSO	NCC 5 149	101
29	UNIV OF CALIFORNIA - SAN DIEGO	A POHORILLE	ARC	V GALINSKY	NCC 2 5302	112
29	UNIV OF CHICAGO	J R FISCHER	GSFC	A MALAGOLI	NCC 5 151	216
29	UNIV OF DAYTON	W D MORRIS	LARC	C E EBELING	NAS 1 99148	426
29	UNIV OF HOUSTON - CLEAR LAKE	JARRELL	JSC	R S CHHIKARA	NCC 9 76	489
29	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J R FISCHER	GSFC	P SAYLOR	NCC 5 153	222
29	UNIV OF MARYLAND - COLLEGE PARK	J R FISCHER	GSFC	P LYSTER	NCC 5 150	275
29	UNIV OF MARYLAND BALTIMORE COUNTY	A ROBERTS	GSFC	D S EBERT	NCC 5 220	279
29	UNIV OF MICHIGAN - ANN ARBOR	J R FISCHER	GSFC	T GOMBOSI	NCC 5 146	323
29	UNIV OF MICHIGAN - ANN ARBOR	M J AFTOSMIS	ARC	K G POWELL	NGT 2 52249	323
29	UNIV OF NEW HAMPSHIRE - DURHAM	M MAIDEN	GSFC	B MOORE	NCC 5 304	354
29	UNIV OF PITTSBURGH	G ASRAR	GSFC	D TIPPER	NGT 5 30019	454
29	UNIV OF TEXAS - AUSTIN	E L CHRISTIANSEN	JSC	E P FAHRENTHOLD	NCC 9 73	496
29	UNIV OF TEXAS - AUSTIN	J R FISCHER	GSFC	G CAREY	NCC 5 154	496
29	UNIV OF TEXAS AT SAN ANTONIO	J A ATKINSON	JSC	R DIEM	NAG 9 773	500
29	UNIV OF TOLEDO	J LITT	GRC	A P DHAWAN	NAG 3 2282	427
29	UNIV OF WASHINGTON	A ROBERTS	GSFC	T FURNESS	NCC 5 248	540
29	UNIV OF WASHINGTON	B A BIEGEL	ARC	M A OSMAN	NCC 2 5346	540
29	WINONA STATE UNIV	R P HEYDORN	JSC	R D JARVINEN	NCC 9 67	331
29	WINSTON-SALEM STATE UNIV	F SIX	MSFC	F LEE	NAG 8 1099	407
31	ALABAMA A&M UNIV	R ARNOLD	MSFC	T L COLEMAN	NCC 8 140	2
31	BOSTON UNIV	B SINGH	GRC	A NADIM	NAG 3 1844	280
31	BOSTON UNIV	D TOLL	GSFC	R B MYNENI	NAS 5 96061	284
31	BOSTON UNIV	H OSEROFF	GSFC	W STRAHLER	NAS 5 31369	284
31	BOSTON UNIV	J ARNOLD	MSFC	G D SALVUCCI	NAG 8 1522	284
31	BOSTON UNIV	J BERGSTRAHL	GSFC	D V YELLE	NAG 5 4426	281
31	BRIDGEWATER STATE COLLEGE	F SIX	MSFC	J SULONOWSKI	NAG 8 1011	285
31	BROWN UNIV	B DAVIS	JSC	D MUSTARD	NAG13 39	457
31	CALIFORNIA INST OF TECH	C H JACKMAN	GSFC	H ZIRIN	NAG 5 2782	44
31	CALIFORNIA INST OF TECH	E HILSENATH	GSFC	Y L YUNG	NAG 5 7230	48
31	CALIFORNIA INST OF TECH	G L MADDREA	LARC	Y L YUNG	NAG 1 2151	43
31	CALIFORNIA INST OF TECH	H HASAN	GSFC	D P INGERSOLL	NAG 5 4191	45
31	CALIFORNIA INST OF TECH	J BERGSTRAHL	GSFC	D L YUNG	NAG 5 6263	47
31	CALIFORNIA INST OF TECH	M CHOU	GSFC	Y L YUNG	NAG 5 7680	48
31	CALIFORNIA INST OF TECH	M J KURYLO	GSFC	D OKUMURA	NAG 5 3911	44
31	CALIFORNIA INST OF TECH	P DECOLA	GSFC	P WENNBURG	NAG 5 7527	48
31	CALIFORNIA INST OF TECH	R A SCHIFFER	HQ	Y L YUNG	NGT 30329	50
31	CALIFORNIA STATE UNIV - FRESNO	D L PETERSON	ARC	D F ZOLDOSKE	NCC 2 5175	52
31	CARNEGIE - MELLON UNIV	J BREDEKAMP	GSFC	A F PTAK	NAG 5 8093	438
31	CASE WESTERN RESERVE UNIV	E PRITCHARD	JSC	R P HARVEY	NGT 9 15	412

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
31	CHRISTOPHER NEWPORT UNIV	G W SACHSE	LARC	A M BUONCRISTIANI	NCC 1 204	507
31	CHRISTOPHER NEWPORT UNIV	G W SOCHSE	LARC	N POUATCHER	NCC 1 318	507
31	CITY UNIV OF NY CITY COLLEGE	L TRAVIS	GSFC	N A PARKER	NCC 5 343	371
31	CITY UNIV OF NY CITY COLLEGE	O W THIELE	GSFC	S GEDZELMAN	NAG 5 7827	370
31	CITY UNIV OF NY CITY COLLEGE	S GLICKER	GSFC	D AKINS	NAG 5 4019	370
31	CITY UNIV OF NY SYSTEM	B E CARLSON	GSFC	N A PARKER	NCC 5 129	371
31	CITY UNIV OF NY SYSTEM	J SIMMONDS	MSFC	W J PIERSON	NAG 8 1423	371
31	CLARK ATLANTA UNIV	D BOGAN	GSFC	P J TAYAL	NAG 5 4763	187
31	CLARK ATLANTA UNIV	J M EARLS	GRC	K B BOTA	NCC 3 454	188
31	CLEMSON UNIV - CLEMSON	J BOYCE	GSFC	D CLAYTON	NAG 5 8304	461
31	CLEMSON UNIV - CLEMSON	O W THIELE	GSFC	C W ULBRICH	NAG 5 7782	461
31	COLLEGE OF WILLIAM AND MARY	J PARK	LARC	D C BENNER	NCC 1 43	507
31	COLORADO STATE UNIV	A J NEGRI	GSFC	G L STEPHENS	NCC 5 288	129
31	COLORADO STATE UNIV	B A WIELICKI	LARC	D A	NAS 1 98125	128
31	COLORADO STATE UNIV	D S MCDUGAL	LARC	D A RANDALL	NAG 1 2081	127
31	COLORADO STATE UNIV	D S MCDUGAL	LARC	D C ROGERS	NAG 1 2063	127
31	COLORADO STATE UNIV	D S MCDUGAL	LARC	G STEPHENS	NAG 1 2062	127
31	COLORADO STATE UNIV	D S MCDUGAL	LARC	S K COX	NAG 1 2080	127
31	COLORADO STATE UNIV	D S MCDUGAL	LARC	W COTTON	NAG 1 2045	126
31	COLORADO STATE UNIV	D S MCDUGAL	LARC	W R COTTON	NAG 1 1703	126
31	COLORADO STATE UNIV	G ASRAR	GSFC	S KREIDENWEIS	NGT 5 30001	129
31	COLORADO STATE UNIV	G GIBSON	LARC	G L STEPHENS	NAS 1 99103	128
31	COLORADO STATE UNIV	G L MADDREA	LARC	D RANDALL	NAS 1 19951	128
31	COLORADO STATE UNIV	J ARNOLD	MSFC	R A PIELKE	NAG 8 1511	128
31	COLORADO STATE UNIV	J C DODGE	GSFC	G L STEPHENS	NAG 5 3449	127
31	COLORADO STATE UNIV	M MISHCHENKO	GSFC	S M KREIDENWEIS	NAG 5 7783	128
31	COLORADO STATE UNIV	O THIELE	GSFC	D RANDALL	NAG 5 4749	127
31	COLORADO STATE UNIV	O W THIELE	GSFC	G L STEPHENS	NAG 5 7719	128
31	COLORADO STATE UNIV	O W THIELE	GSFC	V CHANDRASEKAR	NAG 5 7876	128
31	COLORADO STATE UNIV	O W THIELE	GSFC	V N BRINGI	NAG 5 7717	128
31	COLORADO STATE UNIV	P SELLERS	GSFC	D RANDALL	NAS 5 31730	128
31	COLORADO STATE UNIV	R A ALDER	GSFC	S A RUTLEDGE	NAG 5 4754	127
31	COLORADO STATE UNIV	T MILLER	MSFC	S Q KIDDER	NAS 8 97082	129
31	COLUMBIA UNIV	A LACIS	GSFC	L DRUYAN	NCC 5 82	378
31	COLUMBIA UNIV	A LACIS	GSFC	L M DRUYAN	NCC 5 270	378
31	COLUMBIA UNIV	D PETEET	GSFC	L POLVANI	NCC 5 44	378
31	COLUMBIA UNIV	D RIND	GSFC	I TEGEN	NAG 5 4052	373
31	COLUMBIA UNIV	D RIND	GSFC	M A CHANDLER	NCC 5 328	378
31	COLUMBIA UNIV	M IMISHCHENKO	GSFC	G KUKLA	NAG 5 7687	376
31	COLUMBIA UNIV	M KHAZENIE	GSFC	W BROECKER	NAG 5 6294	375
31	COLUMBIA UNIV	M S BURRELL	GSFC	A D DELGENIO	NGT 5 44	378
31	COLUMBIA UNIV	R B STOTHERS	GSFC	C K CHU	NCC 5 271	378
31	COLUMBIA UNIV	R BEEBEE	GSFC	D BERSOHN	NAG 5 4971	374
31	COLUMBIA UNIV	R STOTHERS	GSFC	C K CHU	NCC 5 34	378
31	COLUMBIA UNIV	R STOTHERS	GSFC	L POLVANI	NCC 5 278	378
31	COLUMBIA UNIV	R W STEWART	GSFC	A MACKE	NAG 5 6240	375
31	COLUMBIA UNIV	R W STEWART	GSFC	T HALL	NAG 5 7138	376
31	CONCORDIA COLLEGE IN MOORHEAD	P MAHAFFY	GSFC	H MANNING	NAG 5 7518	325
31	CONCORDIA COLLEGE IN MOORHEAD	P R MAHAFFY	GSFC	H L MANNING	NAG 5 8626	326
31	CORNELL UNIV	A NOVOTING	HQ	K H COOK	NGT 51374	385
31	CORNELL UNIV	G ASRAR	GSFC	L O HEDIN	NGT 5 30038	385
31	CORNELL UNIV	J ARNOLD	MSFC	W BRUTSAERT	NAG 8 1518	384
31	CORNELL UNIV	M S BURRELL	GSFC	B L ISACKS	NGT 5 51	385
31	CORNELL UNIV	S D SCHUBERT	GSFC	D LUCAS	NGT 5 54	385
31	DREXEL UNIV	J L ROPER	LARC	A R BANDY	NCC 1 297	440
31	DREXEL UNIV	J M HOELL, JR.	LARC	D R BANDY	NAG 1 1770	439
31	DUKE UNIV	J A KAYE	GSFC	P KASIBHATLA	NAG 5 7155	398
31	DUKE UNIV	R ROOD	GSFC	P KABIBHATLA	NAG 5 3665	397
31	FLORIDA A&M UNIV	R LEE	KSC	F B GROSS	NAG10 264	170
31	FLORIDA STATE UNIV	A J NEGRI	GSFC	E A SMITH	NAG 5 4752	174
31	FLORIDA STATE UNIV	D FITZJARRALD	MSFC	T N KRISHNAMURTI	NAG 8 1199	175
31	FLORIDA STATE UNIV	E P CONDON	ARC	H E FUELBERG	NAG 2 1098	173
31	FLORIDA STATE UNIV	G L GREGORY	LARC	H E FUELBERG	NAG 1 1795	172
31	FLORIDA STATE UNIV	J ARNOLD	MSFC	J J O	NCC 8 158	175
31	FLORIDA STATE UNIV	J ARNOLD	MSFC	T N KRISHNAMURTI	NAG 8 1537	175
31	FLORIDA STATE UNIV	J M HOELL, JR.	LARC	H E FUELBERG	NCC 1 308	175

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
31	FLORIDA STATE UNIV	J M HOELL, JR.	LARC	T N KRISHNAMURTI	NAG 1 1771	172
31	FLORIDA STATE UNIV	J R BATES	GSFC	I M NAVON	NAG 5 1660	173
31	FLORIDA STATE UNIV	J R RAPER	LARC	T N KRISHNAURTI	NAG 1 2127	173
31	FLORIDA STATE UNIV	M HALL	GSFC	I NAVON	NAG 5 4873	174
31	FLORIDA STATE UNIV	O W THIELE	GSFC	S E NICHOLSON	NAG 5 7718	174
31	FLORIDA STATE UNIV	O W THIELE	GSFC	T N KRISHNAMURTI	NAG 5 4729	173
31	FLORIDA STATE UNIV	R D MCPETERS	GSFC	D C CAIN	NAG 5 3185	173
31	FLORIDA STATE UNIV	W B ROSSOW	GSFC	G LIU	NAG 5 8647	175
31	GEORGE MASON UNIV	L REMER	GSFC	J RAMAPRASAD	NAG 5 7775	509
31	GEORGE WASHINGTON UNIV	S HOWARD	GSFC	D KEATING	NAG 5 6081	158
31	GEORGETOWN UNIV	G ASRAR	GSFC	J M HICKS	NGT 5 30043	160
31	GEORGIA INST OF TECH	C H JACKMAN	GSFC	D E HARTLEY	NAG 5 2789	190
31	GEORGIA INST OF TECH	E P CONDON	ARC	S C LIU	NAG 2 1103	189
31	GEORGIA INST OF TECH	G L MADDREA	LARC	D M CUNNOLD	NAG 1 2202	189
31	GEORGIA INST OF TECH	G L MADDREA	LARC	D M CUNNOLD	NAS 1 18938	191
31	GEORGIA INST OF TECH	J BERGSTRALH	GSFC	D G STEFFES	NAG 5 4190	191
31	GEORGIA INST OF TECH	J L ROPER	LARC	F L EISELE	NCC 1 301	192
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	D D BRADSHAW	NAG 1 1767	188
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	D D DAVIS	NAG 1 1769	188
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	D D DAVIS	NCC 1 306	192
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	D L EISELE	NAG 1 1766	188
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	S LIU	NAG 1 1822	188
31	GEORGIA INST OF TECH	J M HOELL	LARC	J P BRADSHAW	NAG 1 1904	189
31	GEORGIA INST OF TECH	J M HOELL	LARC	S C LIU	NCC 1 317	192
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	S T SANDHOLM	NCC 1 296	192
31	GEORGIA INST OF TECH	M J KURYLO	GSFC	P H WINE	NAG 5 3634	190
31	GEORGIA INST OF TECH	R F ADLER	GSFC	A J GASIEWSKI	NAG 5 1490	190
31	GEORGIA INST OF TECH	S SCHUBERG	GSFC	R X BLACK	NAG 5 7471	191
31	GEORGIA INST OF TECH	S SCHUBERT	GSFC	R X BLACK	NAG 5 2919	190
31	GEORGIA INST OF TECH	W L GROSE	LARC	S MENON	NAG 1 1631	188
31	HAMPTON UNIV	B A WIENCKI	LARC	B LIN	NAG 1 1963	511
31	HAMPTON UNIV	C JACKMAN	GSFC	D M RUSSELL	NAG 5 7001	512
31	HAMPTON UNIV	E J CONWAY	LARC	T H CHYBA	NCC 1 215	512
31	HAMPTON UNIV	G L MADDREA	LARC	M P MCCORMICK	NAG 1 2170	511
31	HAMPTON UNIV	J FISHMAN	LARC	T H CHYBA	NAG 1 1949	510
31	HAMPTON UNIV	J FISHMAN	LARC	T H CHYBA	NAG 1 2224	511
31	HAMPTON UNIV	J FISHMAN	LARC	T J ZENKER	NCC 1 321	513
31	HAMPTON UNIV	J FISHMAN	LARC	T ZENKER	NCC 1 214	512
31	HAMPTON UNIV	J L RAPER	LARC	M OWENS	NCC 1 319	513
31	HAMPTON UNIV	L R POOLE	LARC	M P MCCORMICK	NAG 1 1947	510
31	HAMPTON UNIV	M I MISHCHENKO	GSFC	M MCCORMICK	NAG 5 8648	512
31	HAMPTON UNIV	P MINNIS	LARC	M P MCCORMICK	NAG 1 2135	511
31	HAMPTON UNIV	R L DUNCAN	LARC	P MCCORMICK	NAS 1 97042	512
31	HAMPTON UNIV	V E DELNORE	LARC	N G LOEB	NAG 1 2206	511
31	HARVARD UNIV	E P CONDON	ARC	D J JACOB	NAG 2 1100	286
31	HARVARD UNIV	E P CONDON	ARC	J G ANDERSON	NAG 2 1300	286
31	HARVARD UNIV	E P CONDON	ARC	S C WOFSY	NAG 2 1304	286
31	HARVARD UNIV	E P CONDON	ARC	S C WOFSY	NAG 2 1310	286
31	HARVARD UNIV	E P CONDON	ARC	S C WOFSY	NCC 2 694	289
31	HARVARD UNIV	G L MADDREA	LARC	D J JACOB	NAG 1 1909	286
31	HARVARD UNIV	G L MADDREA	LARC	J G ANDERSON	NAG 1 2007	286
31	HARVARD UNIV	G L MADDREA	LARC	S C WOFSY	NAG 1 2025	286
31	HARVARD UNIV	J M HOELL, JR.	LARC	D J JACOB	NAG 1 1759	286
31	HARVARD UNIV	J RAPER	LARC	D J JACOB	NAG 1 2126	286
31	HARVARD UNIV	L R POOLE	LARC	J G ANDERSON	NAG 1 1305	285
31	HARVARD UNIV	L R POOLE	LARC	J G ANDERSON	NAG 1 1849	286
31	HARVARD UNIV	R W STEWART	GSFC	D J JACOB	NAG 5 2688	286
31	HARVARD UNIV	R W STEWART	GSFC	D JACOB	NAG 5 7201	288
31	HARVARD UNIV	S S WEGENER	ARC	J G ANDERSN	NCC 2 913	289
31	HARVARD UNIV	S S WEGENER	ARC	S C WOFSY	NCC 2 897	289
31	HOWARD UNIV	D BOGAN	GSFC	D OKABE	NAG 5 4764	161
31	HOWARD UNIV	J HARRINGTN	GSFC	A N THORPE	NCC 5 197	162
31	HOWARD UNIV	J T BERGSTRALH	HQ	H OKABE	NAGW 785	161
31	HOWARD UNIV	M SUAREZ	GSFC	J LINDSAY	NGT 5 55	162
31	HOWARD UNIV	S R BREON	GSFC	A N THORPE	NAG 5 1017	161
31	HOWARD UNIV	W HOEGY	GSFC	A THORPE	NCC 5 420	162

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
31	HOWARD UNIV	W HOEGY	GSFC	S T SMITH	NCC 5 424	162
31	INDIANA STATE UNIV	B DAVIS	SSC	P MAUSEL	NAG13 34	223
31	IOWA STATE UNIV	A DOUGLASS	GSFC	D L STANFORD	NAG 5 7133	231
31	IOWA STATE UNIV	A J KRUEGER	GSFC	J L STANFORD	NAG 5 1519	231
31	IOWA STATE UNIV	C H JACKMAN	GSFC	J L STANFORD	NAG 5 2787	231
31	IOWA STATE UNIV	M RIENECKER	GSFC	T C CHEN	NAG 5 8293	232
31	IOWA STATE UNIV	S CHANDRA	GSFC	S L STANFORD	NAG 5 7271	231
31	IOWA STATE UNIV	S SCHUBERT	GSFC	T CHEN	NAG 5 7530	231
31	JACKSON STATE UNIV	J JENNER	JSC	P CROFT	NAG13 99013	332
31	JACKSON STATE UNIV	R ADLER	GSFC	P FITZPATRICK	NAG 5 6209	332
31	JACKSON STATE UNIV	R MILLER	JSC	R REDDY	NAG13 99012	332
31	JAMES MADISON UNIV	G W SACHSE	LARC	J J MILES	NCC 1 267	513
31	JOHNS HOPKINS UNIV	D BOGAN	GSFC	D F STROBEL	NAG 5 4168	251
31	JOHNS HOPKINS UNIV	D MARGOLIES	GSFC	B MAUK	NAG 5 8395	256
31	JOHNS HOPKINS UNIV	E HILSENATH	GSFC	S A LLOYD	NAG 5 7227	254
31	JOHNS HOPKINS UNIV	G L MADDREA	LARC	D W WAUGH	NAG 1 2043	249
31	JOHNS HOPKINS UNIV	G L MADDREA	LARC	D W WAUGH	NAG 1 2194	250
31	JOHNS HOPKINS UNIV	H BLODGET	GSFC	J SALISBURY	NAS 5 31373	259
31	JOHNS HOPKINS UNIV	K M LAU	GSFC	A ARKING	NAG 5 2039	250
31	JOHNS HOPKINS UNIV	M J KURYLO	GSFC	S A LLOYD	NAG 5 4780	252
31	JOHNS HOPKINS UNIV	R W STEWART	GSFC	D W WAUGH	NAG 5 7361	254
31	JOHNS HOPKINS UNIV	W LAU	GSFC	A ARKING	NAG 5 8572	256
31	LOUISIANA STATE UNIV - BATON ROUGE	J OWENS	MSFC	G C CLAYTON	NAG 8 1048	243
31	MANKATO STATE UNIV	J BREDEKAMP	GSFC	J HAKKILA	NAG 5 8142	326
31	MASSACHUSETTS INST OF TECH	A DOUGLASS	GSFC	D NEWELL	NAG 5 6710	299
31	MASSACHUSETTS INST OF TECH	A HOU	GSFC	P H STONE	NAG 5 4880	297
31	MASSACHUSETTS INST OF TECH	C H JACKMAN	GSFC	R A PLUMB	NAG 5 2812	294
31	MASSACHUSETTS INST OF TECH	D RIND	GSFC	P H STONE	NAG 5 7204	299
31	MASSACHUSETTS INST OF TECH	D WEST	GSFC	P STONE	NAG 5 2907	294
31	MASSACHUSETTS INST OF TECH	E P CONDON	ARC	N E NEWELL	NAG 2 1105	292
31	MASSACHUSETTS INST OF TECH	G L MADDREA	LARC	R A PLUMB	NAG 1 1900	291
31	MASSACHUSETTS INST OF TECH	G L MADDREA	LARC	R A PLUMB	NAG 1 2027	291
31	MASSACHUSETTS INST OF TECH	G L MADDREA	LARC	R E NEWELL	NAG 1 1901	291
31	MASSACHUSETTS INST OF TECH	G L MADDREA	LARC	R G PRINN	NAG 1 1805	291
31	MASSACHUSETTS INST OF TECH	G L MADDREA	LARC	R G PRINN	NAG 1 2152	291
31	MASSACHUSETTS INST OF TECH	G MADDREA	LARC	R PLUMB	NAG 1 2203	291
31	MASSACHUSETTS INST OF TECH	G SMITH	GSFC	T A HERRING	NAS 5 99007	304
31	MASSACHUSETTS INST OF TECH	H BRINTON	HQ	P FORD	NAGW 4351	303
31	MASSACHUSETTS INST OF TECH	J A KAYE	GSFC	R A PLUMB	NAG 5 3793	296
31	MASSACHUSETTS INST OF TECH	J ARNOLD	MSFC	D ENTEKHABI	NAG 8 1524	303
31	MASSACHUSETTS INST OF TECH	J BERGSTALH	GSFC	D RICHARDSON	NAG 5 6129	298
31	MASSACHUSETTS INST OF TECH	J C SHIUE	GSFC	D STAELIN	NAG 5 7487	301
31	MASSACHUSETTS INST OF TECH	J M HOELL, JR.	LARC	D E NEWELL	NAG 1 1758	291
31	MASSACHUSETTS INST OF TECH	J M HOELL	LARC	R E NEWELL	NAG 1 2173	291
31	MASSACHUSETTS INST OF TECH	J SHIUE	GSFC	D H STAELIN	NAG 5 2545	294
31	MASSACHUSETTS INST OF TECH	K H BERGMAN	GSFC	D S LINDZEN	NAG 5 6304	298
31	MASSACHUSETTS INST OF TECH	M J KURYLO	GSFC	M J MOLINA	NAG 5 3947	296
31	MASSACHUSETTS INST OF TECH	M J KURYLO	GSFC	R G PRINN	NAG 5 3974	296
31	MASSACHUSETTS INST OF TECH	O W THIELE	GSFC	E R WILLIAMS	NAG 5 4778	297
31	MASSACHUSETTS INST OF TECH	P L DECOLA	GSFC	P STEINFELD	NAG 5 3977	296
31	MASSACHUSETTS INST OF TECH	R KAKAR	GSFC	R L BRAS	NAG 5 3726	295
31	MASSACHUSETTS INST OF TECH	R W STEWART	GSFC	R PLUMB	NAG 5 8224	301
31	MASSACHUSETTS INST OF TECH	W WILDES	GSFC	G CARRIGAN	NAS 5 99198	304
31	MICHIGAN TECHNOLOGICAL UNIV	A J KRUEGER	GSFC	W ROSE	NAG 5 7272	314
31	MICHIGAN TECHNOLOGICAL UNIV	J BERSTALH	GSFC	D BORYSOW	NAG 5 4534	314
31	MOREHOUSE COLLEGE	E COTHRAN	MSFC	G WALKER	NAG 8 1231	195
31	NEW MEXICO INST OF MINING & TECH	C JACKMAN	GSFC	K MINSCHWANER	NAG 5 2847	364
31	NEW MEXICO INST OF MINING & TECH	J HERMAN	GSFC	D R MINSCHWANER	NAG 5 7109	364
31	NEW MEXICO INST OF MINING & TECH	L MAIER	KSC	W RISON	NAG10 188	364
31	NEW MEXICO INST OF MINING & TECH	M J KURYLO	GSFC	K MINSCHWANNER	NAG 5 4139	364
31	NEW MEXICO INST OF MINING & TECH	R J BLAKESLEE	MSFC	M BROOK	NAG 8 1123	364
31	NEW MEXICO STATE UNIV - LAS CRUCES	J BERGSTALH	GSFC	D MARLEY	NAG 5 4987	365
31	NY UNIV	C ROSENZWEIG	GSFC	M HOFFERT	NCC 5 125	387
31	NIAGARA UNIV	R BLAKESLEE	MSFC	W BOECK	NCC 8 55	387
31	NIAGARA UNIV	R BLAKESLEE	MSFC	W BOECK	NCC 8 182	387
31	NORFOLK STATE UNIV	J C BARNES	LARC	E S GILLMAN	NAG 1 2228	514

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
31	NORFOLK STATE UNIV	R A HATHAWAY	LARC	C COLEMAN	NAG 1 2226	514
31	NORFOLK STATE UNIV	W P CHU	LARC	M KUNG	NAG 1 1944	514
31	NORTH CAROLINA STATE UNIV	A NWGRI	GSFC	M KAPLAN	NAG 5 4802	401
31	NORTH CAROLINA STATE UNIV	B E ANDERSON	LARC	M SMITH	NGT 1 52183	405
31	NORTH CAROLINA STATE UNIV	F H PROCTOR	LARC	Y L LIN	NAS 1 99097	404
31	NORTH CAROLINA STATE UNIV	F H PROCTOR	LARC	Y L LIN	NCC 1 188	404
31	NORTH CAROLINA STATE UNIV	F H PROCTOR	LARC	Y L LIN	NCC 1 220	404
31	NORTH CAROLINA STATE UNIV	J ARNOLD	MSFC	R ABT	NCC 8 159	405
31	NORTH CAROLINA STATE UNIV	Y CONNORS	LARC	S RAMAR	NAG 1 1752	403
31	NOVOSIBIRSK STATE UNIV	R W STEWART	GSFC	I G DEMINOV	NAG 5 3409	559
31	OHIO STATE UNIV	M J KURYLO	GSFC	F C DEELUCIA	NAG 5 3983	418
31	OHIO STATE UNIV	T W HAMILTON	GSFC	R H THOMAS	NAS 5 30946	421
31	OHIO STATE UNIV	W B KRABILL	WFF	E MOSLEY-THOMPSON	NAG 5 5032	419
31	OLD DOMINION UNIV	S K KAHNG	LARC	D RICHMOND	NGT 1 52194	519
31	OLD DOMINION UNIV	W P CHU	LARC	A N DHARAMSI	NAG 1 1869	516
31	OLD DOMINION UNIV	W T CHU	LARC	P SHEA	NGT 1 52168	519
31	OREGON STATE UNIV	B A WIELICKI	LARC	J COAKLEY	NAS 1 98140	434
31	OREGON STATE UNIV	C RABER	GSFC	D H FREILICH	NAS 5 32965	434
31	OREGON STATE UNIV	E P CONDON	ARC	J B KAUFFMAN	NGT 2 52221	435
31	OREGON STATE UNIV	G GIBSON	LARC	J M COAKLEY	NAS 1 99104	434
31	OREGON STATE UNIV	G L MADDREA	LARC	J A COAKLEY	NAS 1 19952	434
31	OREGON STATE UNIV	J BERGSTRALH	GSFC	D BARNES	NAG 5 6189	433
31	OREGON STATE UNIV	J W YOUNGBLOOD	LARC	J A COAKLEY	NAG 1 1263	432
31	OREGON STATE UNIV	M I MISHCHENKO	GSFC	J A COAKLEY	NAG 5 7686	433
31	OREGON STATE UNIV	R A SCHIFFER	GSFC	G DALRYMPLE	NAG 5 8261	434
31	OREGON STATE UNIV	R M HABERLE	ARC	J R BARNES	NCC 2 661	435
31	OREGON STATE UNIV	R M HABERLE	ARC	J R BARNES	NCC 2 1102	435
31	OREGON STATE UNIV	R M HABERLE	ARC	J R BARNES	NGT 2 52245	435
31	OREGON STATE UNIV	S H GOGINENI	GSFC	D LEVY	NAG 5 4069	432
31	PENN STATE UNIV	A NEGRI	GSFC	D STAUFFER	NAG 5 6398	445
31	PENN STATE UNIV	C D KUMMEROW	GSFC	C S RUF	NAG 5 8005	447
31	PENN STATE UNIV	D S MCDUGAL	LARC	C R PHILBRICK	NAG 1 2074	442
31	PENN STATE UNIV	D S MCDUGAL	LARC	T P ACKERMAN	NAG 1 2064	441
31	PENN STATE UNIV	E CONDON	ARC	W BRUNE	NAG 2 826	442
31	PENN STATE UNIV	E P CONDON	ARC	G S FORBES	NAG 2 1295	442
31	PENN STATE UNIV	E P CONDON	ARC	W H BRUNE	NAG 2 1302	442
31	PENN STATE UNIV	E P CONDON	ARC	W H BRUNE	NAG 2 1309	442
31	PENN STATE UNIV	J ARNOLD	MSFC	N L SEAMAN	NAG 8 1530	448
31	PENN STATE UNIV	J M HOELL, JR.	LARC	W H BRUNE	NCC 1 300	449
31	PENN STATE UNIV	L MAIER	KSC	G S FORBES	NAG10 187	448
31	PENN STATE UNIV	O THIELE	GSFC	G JENKINS	NAG 5 7443	446
31	PENN STATE UNIV	O W THIELE	GSFC	A P BARROS	NAG 5 7781	447
31	PENN STATE UNIV	R E YOUNG	ARC	J F KASTING	NCC 2 5307	449
31	PENN STATE UNIV	R S HIPSKIND	ARC	W H BRUNE	NAG 2 1117	442
31	PENN STATE UNIV	T OWENS	LARC	T P ACKERMAN	NAG 1 999	441
31	PENN STATE UNIV	W TAO	GSFC	M FRITSCH	NAG 5 2927	443
31	PRAIRIE VIEW A&M UNIV	G CRESS	JSC	S B LIN	NAG 9 878	473
31	PRINCETON UNIV	G ASRAR	GSFC	H LEVY	NGT 5 30015	359
31	PRINCETON UNIV	J ARNOLD	MSFC	E F WOOD	NAG 8 1517	358
31	PRINCETON UNIV	J ARNOLD	MSFC	J A SMITH	NAG 8 1521	358
31	PRINCETON UNIV	O W THIELE	GSFC	J A SMITH	NAG 5 7744	358
31	PURDUE UNIV	B L APENTA	MSFC	G W PETTY	NAG 8 1233	228
31	PURDUE UNIV	D BOGAN	GSFC	D ZWIER	NAG 5 4819	227
31	PURDUE UNIV	G ASRAR	GSFC	D HARSHVARDHAN	NGT 5 30040	229
31	PURDUE UNIV	J C DODGE	HQ	G W PETTY	NAGW 3944	228
31	PURDUE UNIV	K H BERGMAN	GSFC	D HARSHVARDHAN	NAG 5 3992	227
31	PURDUE UNIV	R KAKAR	GSFC	C A CLAYSON	NAG 5 3965	227
31	RICE UNIV	H E DAVIS	JSC	F TITTLE	NAS 9 19553	476
31	RICE UNIV	J BERGSTRALH	GSFC	D HILL	NAG 5 6432	475
31	ROCHESTER INST OF TECH	F SIX	MSFC	M L WINGSWORTH	NAG 8 1008	389
31	RUTGERS STATE UNIV - PISCATAWAY	B A BAUM	LARC	J A FRANCIS	NAG 1 1748	360
31	RUTGERS STATE UNIV - PISCATAWAY	J ARNOLD	MSFC	Y LIU	NAG 8 1513	361
31	RUTGERS STATE UNIV - PISCATAWAY	L R POOLE	LARC	J A FRANCIS	NAG 1 2058	360
31	RUTGERS STATE UNIV - PISCATAWAY	S HOWARD	GSFC	D MADEY	NAG 5 6186	361
31	RUTGERS STATE UNIV OF NJ COOK CAMPUS	G L MADDREA	LARC	A ROBOCK	NAG 1 2154	361
31	RUTGERS STATE UNIV OF NJ COOK CAMPUS	K H BERGMAN	GSFC	G STENCHIKOV	NAG 5 7913	362

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
31	RUTGERS STATE UNIV OF NJ COOK CAMPUS	R B STOTHERS	GSFC	R AVISSAR	NCC 5 229	362
31	SAINT ANSELM COLLEGE	A J NEGRI	GSFC	D GUERRA	NCC 5 384	348
31	SAN FRANCISCO STATE UNIV	R S HIPSKIND	ARC	K L PAGAN	NCC 2 901	57
31	SAN FRANCISCO STATE UNIV	R S HIPSKIND	ARC	K L PAGAN	NCC 2 1128	57
31	SAN JOSE STATE UNIV	G L MADDREA	LARC	P HAMILL	NAG 1 1804	57
31	SAN JOSE STATE UNIV	G L MADDREA	LARC	P HAMILL	NAG 1 2205	57
31	SAN JOSE STATE UNIV	H B SINGH	ARC	P A HAMMILL	NCC 2 5347	60
31	SAN JOSE STATE UNIV	L E LASHER	ARC	P LESTER	NCC 2 471	58
31	SAN JOSE STATE UNIV	P BUI	ARC	J GOODMAN	NCC 2 1045	59
31	SAN JOSE STATE UNIV	P BUI	ARC	J GOODMAN	NCC 2 1106	59
31	SAN JOSE STATE UNIV	R B CHATFIELD	ARC	P A HAMILL	NCC 2 1091	59
31	SAN JOSE STATE UNIV	R B CHATFIELD	ARC	P HAMILL	NCC 2 756	58
31	SAN JOSE STATE UNIV	R B CHATFIELD	ARC	S C RAFKIN	NCC 2 5353	60
31	SAN JOSE STATE UNIV	R E YOUNG	ARC	A C BRIDGER	NCC 2 955	58
31	SAN JOSE STATE UNIV	R E YOUNG	ARC	A SEIFF	NCC 2 1059	59
31	SAN JOSE STATE UNIV	R F PUESCHEL	ARC	P J HAMILL	NCC 2 5283	60
31	SAN JOSE STATE UNIV	R L CHAN	ARC	J GOODMAN	NCC 2 168	58
31	SAN JOSE STATE UNIV	R M HABERLE	ARC	A C BRIDGER	NCC 2 5203	59
31	SAN JOSE STATE UNIV	R M HABERLE	ARC	A C BRIDGER	NCC 2 5280	60
31	SAN JOSE STATE UNIV	R M HABERLE	ARC	A C BRIDGER	NCC 2 5330	60
31	SAN JOSE STATE UNIV	R M HABERLE	ARC	A F BRIDGER	NCC 2 5230	59
31	SAN JOSE STATE UNIV	R M HABERLE	ARC	D C BRIDGER	NCC 2 5181	59
31	SAN JOSE STATE UNIV	R M HABERLE	ARC	J L HOLLINGSWORT	NCC 2 5336	60
31	SAN JOSE STATE UNIV	T V BUI	ARC	J GOODMAN	NCC 2 211	58
31	SOUTH DAKOTA SCH OF MINES & TECH	R F ADLER	GSFC	P SMITH	NAG 5 386	464
31	SOUTHERN UNIV & A&M COLLEGE	R LEE	KSC	R M DIVWAN	NAG10 182	245
31	STANFORD UNIV	A NURRIDIN	HQ	U INAN	NGT 5 50227	70
31	STANFORD UNIV	C MCKAY	ARC	B CANTWELL	NCC 2 5166	68
31	STANFORD UNIV	D BOGAN	GSFC	P L TYLER	NAG 5 4321	64
31	STANFORD UNIV	J BERGSTRAHL	GSFC	D R ESHLEMAN	NAG 5 4322	64
31	STANFORD UNIV	M BALTUCK	GSFC	G ERNST	NAG 5 4888	64
31	STANFORD UNIV	P SELLERS	GSFC	H MOONEY	NAS 5 31726	67
31	STATE UNIV OF NY - ALBANY	A NEGRI	GSFC	L BOSART	NAG 5 7469	390
31	STATE UNIV OF NY - ALBANY	G L MADDREA	LARC	V MOHNEN	NAS 1 18942	390
31	STATE UNIV OF NY - ALBANY	L PFISTER	ARC	M KRITZ	NCC 2 5125	390
31	STATE UNIV OF NY - ALBANY	L PFISTER	ARC	M KRITZ	NCC 2 5212	390
31	STATE UNIV OF NY - ALBANY	R W STEWART	GSFC	C W WALEK	NAG 5 2714	390
31	STATE UNIV OF NY - STONY BROOK	A DOUGLASS	GSFC	D A GELLER	NAG 5 7134	393
31	STATE UNIV OF NY - STONY BROOK	A R DOUGLASS	GSFC	M A GELLER	NAG 5 3177	392
31	STATE UNIV OF NY - STONY BROOK	B A WIELICKI	LARC	R D CESS	NAG 1 1264	391
31	STATE UNIV OF NY - STONY BROOK	B A WIELICKI	LARC	R D CESS	NAS 1 98142	394
31	STATE UNIV OF NY - STONY BROOK	B CARLSON	GSFC	M GELLER	NCC 5 342	394
31	STATE UNIV OF NY - STONY BROOK	D KURYLO	GSFC	D VARANABI	NAG 5 3718	392
31	STATE UNIV OF NY - STONY BROOK	D S MCDUGAL	LARC	R A WALISER	NAG 1 2065	391
31	STATE UNIV OF NY - STONY BROOK	G L MADDREA	LARC	M A GELLER	NAG 1 2040	391
31	STATE UNIV OF NY - STONY BROOK	G L MADDREA	LARC	M A GELLER	NAG 1 2166	391
31	STATE UNIV OF NY - STONY BROOK	J BERGSTRAHL	GSFC	D FOX	NAG 5 6007	393
31	STATE UNIV OF NY - STONY BROOK	M D CHOU	GSFC	M ZHANG	NAG 5 3135	392
31	STATE UNIV OF NY - STONY BROOK	M J KURYLO	GSFC	P SOLOMON	NAG 5 4043	392
31	STATE UNIV OF NY - STONY BROOK	M J KURYLO	GSFC	R L DE ZAFRA	NAG 5 4071	392
31	STATE UNIV OF NY - STONY BROOK	R W STEWART	GSFC	M A GELLER	NAG 5 2739	392
31	STATE UNIV OF NY - STONY BROOK	R W STEWART	GSFC	M GELLER	NAG 5 7875	393
31	STATE UNIV OF NY COL - PURCHASE	H M HELFAND	GSFC	J TENENBAUM	NAG 5 3169	394
31	STATE UNIV OF NY COL - PURCHASE	H M HELFAND	GSFC	J TENENBAUM	NAG 5 8499	395
31	STATE UNIV OF NY COL - PURCHASE	J A KAYE	GSFC	J TENENBAUM	NAG 5 7502	395
31	STATE UNIV OF NY COL - PURCHASE	R W STEWART	GSFC	J TENENBAUM	NAG 5 2700	394
31	STEVENS INST OF TECH	R BEEBEE	GSFC	D BECKER	NAG 5 4978	362
31	TEXAS A&M UNIV SYSTEM	J C DODGE	GSFC	E ZIPSER	NAG 5 4699	482
31	TEXAS A&M UNIV	CHERMAN	JSC	J S LINDER	NAG 9 331	480
31	TEXAS A&M UNIV	G ASRAR	GSFC	E ZIPSER	NGT 5 30033	482
31	TEXAS A&M UNIV	G L MADDREA	LARC	K P BOWMAN	NAG 1 1896	478
31	TEXAS A&M UNIV	J ARNOLD	MSFC	E J ZIPSER	NAG 8 1491	480
31	TEXAS A&M UNIV	K LULLA	JSC	J GIARDINO	NAG 9 807	480
31	TEXAS A&M UNIV	O A THIELE	GSFC	T T WILHEIT	NAG 5 4746	479
31	TEXAS A&M UNIV	O THIELE	GSFC	E ZIPSER	NAG 5 1569	479
31	TEXAS A&M UNIV	O THIELE	GSFC	E ZIPSER	NAG 5 4796	479

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
31	TEXAS A&M UNIV	O W THEILE	GSFC	G R NORTH	NAG 5 4753	479
31	TEXAS A&M UNIV	O W THIELE	GSFC	M I BIGGERSTAFF	NAG 5 4776	479
31	TEXAS A&M UNIV	P HWONG	GSFC	T T WILHEIT	NAS 5 32593	481
31	TEXAS TECH UNIV	G L MADDREA	LARC	G I GELLEN	NAG 1 2192	484
31	THE CATHOLIC UNIV OF AMERICA	T GULL	GSFC	S KRAEMER	NAG 5 4103	163
31	THE SCRIPPS REASERCH INST	J KAYE	GSFC	D LUBIN	NAG 5 3984	70
31	THE UNIV OF CENTRAL FLORIDA	J M SIMONDS	MSFC	W L JONES	NAG 8 1426	176
31	THE UNIV OF CENTRAL FLORIDA	J QUINN	KSC	C D COOPER	NCC10 20	177
31	THE UNIV OF CENTRAL FLORIDA	O W THIELE	GSFC	W JONES	NAG 5 7068	176
31	UNIV HOUSTON-HOUSTON	O W THIELE	GSFC	J R LAWRENCE	NAG 5 7840	484
31	UNIV OF MINN	O W THIELE	GSFC	E FOUFOULA-GEORGI	NAG 5 7715	328
31	UNIV OF MINN	R F CAHALAN	GSFC	E FOUFOULA-GEORGIOU	NAG 5 2108	327
31	UNIV OF MINN	S ISMAIL	LARC	K J DAVIS	NAG 1 1938	326
31	UNIV OF MINN	W L GROSE	LARC	D PUI	NCC 1 311	330
31	UNIV	D S MCDOUGAL	LARC	J HALLETT	NAG 1 2046	345
31	UNIV	E P CONDON	ARC	W P ARNOTT	NAG 2 1104	345
31	UNIV	O W THIELE	GSFC	J HALALET	NAG 5 7973	346
31	UNIV	V E DELNORE	LARC	J G HUDSON	NAG 1 1845	345
31	UNIV OF ALABAMA - HUNTSVILLE	B A WIELICKI	LARC	R WELCH	NAG 1 1955	8
31	UNIV OF ALABAMA - HUNTSVILLE	B A WIELICKI	LARC	R WELCH	NAS 1 98131	16
31	UNIV OF ALABAMA - HUNTSVILLE	D K WEST	GSFC	R WELCH	NAG 5 6040	10
31	UNIV OF ALABAMA - HUNTSVILLE	G L MADDREA	LARC	M J NEWCHURCH	NAG 1 1842	8
31	UNIV OF ALABAMA - HUNTSVILLE	G L MADDREA	LARC	M J NEWCHURCH	NAG 1 1898	8
31	UNIV OF ALABAMA - HUNTSVILLE	G L MADDREA	LARC	M J NEWCHURCH	NAG 1 2026	8
31	UNIV OF ALABAMA - HUNTSVILLE	G L MADDREA	LARC	M J NEWCHURCH	NAG 1 2204	8
31	UNIV OF ALABAMA - HUNTSVILLE	H RAMPRIYAN	GSFC	R WELCH	NAG 5 4788	10
31	UNIV OF ALABAMA - HUNTSVILLE	J R HERMAN	GSFC	S A CHRISTOPHER	NAG 5 7270	11
31	UNIV OF ALABAMA - HUNTSVILLE	M E MAIDEN	HQ	J R CHRISTY	NAGW 4749	16
31	UNIV OF ALABAMA - HUNTSVILLE	M MISCHENKO	GSFC	S A CHRISTOPHER	NAG 5 8404	13
31	UNIV OF ALABAMA - HUNTSVILLE	R E HARBAUGH	GSFC	M SUMMERLIN	NAS 5 99179	16
31	UNIV OF ALABAMA - HUNTSVILLE	S CHANDRA	GSFC	M NEWCHURCH	NAG 5 7269	11
31	UNIV OF ALABAMA - UNIV	M MISHCHENKO	GSFC	Q HAN	NAG 5 7702	19
31	UNIV OF ALABAMA - UNIV	S HOWARD	GSFC	D TIPPING	NAG 5 6314	19
31	UNIV OF ALASKA - FAIRBANKS	M J FILLIS	GSFC	S SCHWATAL	NAS 5 32206	23
31	UNIV OF ALASKA - FAIRBANKS	S GOGINENI	GSFC	C LINGLE	NAG 5 4981	21
31	UNIV OF ARIZONA	A DOUGLASS	GSFC	D FU	NAG 5 6687	34
31	UNIV OF ARIZONA	A J NEGRI	GSFC	B M HERMAN	NCC 5 355	40
31	UNIV OF ARIZONA	A NEGRI	GSFC	J REAGAN	NAG 5 6070	34
31	UNIV OF ARIZONA	D BOGAN	GSFC	D W BOUGHER	NAG 5 4161	32
31	UNIV OF ARIZONA	G GIBSON	LARC	J A REAGAN	NAS 1 99102	40
31	UNIV OF ARIZONA	G L MADDREA JR	LARC	B M HERMAN	NAS 1 18939	39
31	UNIV OF ARIZONA	G L MADDREA	LARC	J A REAGAN	NAS 1 19953	39
31	UNIV OF ARIZONA	G L MADDREA	LARC	L L HOOD	NAG 1 2023	29
31	UNIV OF ARIZONA	H OSEROFF	GSFC	A HUETE	NAS 5 31364	40
31	UNIV OF ARIZONA	J A KAYE	GSFC	L L HOOD	NAG 5 3777	31
31	UNIV OF ARIZONA	J ARNOLD	MSFC	C D WEIDMAN	NAG 8 1542	39
31	UNIV OF ARIZONA	J ARNOLD	MSFC	S SOROOSHIAN	NAG 8 1523	38
31	UNIV OF ARIZONA	J ARNOLD	MSFC	W J SHUTTLEWORTH	NAG 8 1531	38
31	UNIV OF ARIZONA	J ARNOLD	MSFC	Z YANG	NAG 8 1520	38
31	UNIV OF ARIZONA	J BERGSTALH	GSFC	M M LARSON	NAG 5 3791	31
31	UNIV OF ARIZONA	J BERGSTALH	GSFC	S BOUGHER	NAG 5 7994	37
31	UNIV OF ARIZONA	J R HILL	LARC	B M HERMAN	NAS 1 99055	39
31	UNIV OF ARIZONA	L STUART	GSFC	P N SLATER	NAS 5 31717	40
31	UNIV OF ARIZONA	M I MISHCHENKO	GSFC	K J THOME	NAG 5 8686	38
31	UNIV OF ARIZONA	M MISHCHENKO	GSFC	J A REAGAN	NAG 5 8117	37
31	UNIV OF ARIZONA	O W THIELE	GSFC	S SOROOSHIAN	NAG 5 7716	36
31	UNIV OF ARIZONA	R BEEBE	GSFC	D L HERBERT	NAG 5 4158	32
31	UNIV OF ARIZONA	R D MCPETERS	GSFC	B M HERMAN	NAG 5 1496	29
31	UNIV OF ARIZONA	R D MCPETERS	GSFC	B M HERMAN	NAG 5 7257	36
31	UNIV OF ARIZONA	R RIND	GSFC	L L HOOD	NAG 5 7834	36
31	UNIV OF ARIZONA	T SEVER	MSFC	T P CULBERT	NCC 8 160	40
31	UNIV OF ARIZONA	V E DELNORE	LARC	B M HERMAN	NAG 1 2218	29
31	UNIV OF ARIZONA	W JAFFERIS	KSC	E P KRIDER	NAG10 92	39
31	UNIV OF CALIFORNIA - BERKELEY	E P CONDON	ARC	R C COHEN	NAG 2 1110	71
31	UNIV OF CALIFORNIA - BERKELEY	G L MADDREA	LARC	K A BOERING	NAG 1 2191	71
31	UNIV OF CALIFORNIA - BERKELEY	J HILL	LARC	R COHEN	NAS 1 99053	80

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
31	UNIV OF CALIFORNIA - BERKELEY	L CHRISTENSEN	GSFC	F MOZER	NAS 5 30801	80
31	UNIV OF CALIFORNIA - BERKELEY	P SELLERS	GSFC	P MATSON	NAS 5 96092	80
31	UNIV OF CALIFORNIA - BERKELEY	S HOWARD	GSFC	D G LUHMANN	NAG 5 4979	74
31	UNIV OF CALIFORNIA - BERKELEY	S HOWARD	GSFC	D S MARCUS	NAG 5 4899	74
31	UNIV OF CALIFORNIA - DAVIS	J BERGSTALH	GSFC	D M JACKSON	NAG 5 4711	85
31	UNIV OF CALIFORNIA - DAVIS	J BERGSTALH	GSFC	D WHITE	NAG 5 6246	85
31	UNIV OF CALIFORNIA - DAVIS	O W THIELE	GSFC	C E PUENTE	NAG 5 7441	85
31	UNIV OF CALIFORNIA - DAVIS	P SELLERS	GSFC	S USTIN	NAS 5 31359	86
31	UNIV OF CALIFORNIA - DAVIS	T L MILLER	MSFC	T R NATHAN	NAG 8 1143	86
31	UNIV OF CALIFORNIA - IRVINE	C H JACKMAN	GSFC	D W TOOHEY	NAG 5 2780	89
31	UNIV OF CALIFORNIA - IRVINE	G L MADREA	LARC	M J PRANTHER	NAG 1 1906	88
31	UNIV OF CALIFORNIA - IRVINE	J A KAYE	GSFC	S C TYLER	NAG 5 3467	89
31	UNIV OF CALIFORNIA - IRVINE	J M HOELL, JR.	LARC	D R BLAKE	NCC 1 299	91
31	UNIV OF CALIFORNIA - IRVINE	J M HOELL	LARC	D R BLAKE	NAG 1 2005	88
31	UNIV OF CALIFORNIA - IRVINE	M I MISHCHENKO	GSFC	M J PRATHER	NAG 5 8685	90
31	UNIV OF CALIFORNIA - IRVINE	M WEI	GSFC	D TOOHEY	NGT 5 30035	91
31	UNIV OF CALIFORNIA - IRVINE	R J FITZGERALD	GSFC	M J PRATHER	NAG 5 6396	90
31	UNIV OF CALIFORNIA - IRVINE	R W STEWART	GSFC	M J PRATHER	NAG 5 2724	89
31	UNIV OF CALIFORNIA - IRVINE	R W STEWART	GSFC	M J PRATHER	NAG 5 7137	90
31	UNIV OF CALIFORNIA - IRVINE	R W STEWART	GSFC	M J PRATHER	NAG 5 8223	90
31	UNIV OF CALIFORNIA - LOS ANGELES	C H JACKMAN	GSFC	R K ULRICH	NAG 5 2749	93
31	UNIV OF CALIFORNIA - LOS ANGELES	D S MCDUGAL	LARC	K N LIOU	NAG 1 1966	91
31	UNIV OF CALIFORNIA - LOS ANGELES	J BERGSTALH	GSFC	D M THORNE	NAG 5 6265	96
31	UNIV OF CALIFORNIA - LOS ANGELES	J BERGSTALH	GSFC	P SCHUBERT	NAG 5 4117	94
31	UNIV OF CALIFORNIA - LOS ANGELES	J PFAENDTNER	GSFC	M GHIL	NAG 5 713	93
31	UNIV OF CALIFORNIA - LOS ANGELES	M D KING	GSFC	K N LIOU	NAG 5 7123	97
31	UNIV OF CALIFORNIA - LOS ANGELES	M DAH CHOU	GSFC	K N LIOU	NAG 5 6397	96
31	UNIV OF CALIFORNIA - LOS ANGELES	M I MISHCHENKO	GSFC	K LIOU	NAG 5 7738	97
31	UNIV OF CALIFORNIA - LOS ANGELES	M KING	GSFC	K N LIOU	NAG 5 6160	96
31	UNIV OF CALIFORNIA - LOS ANGELES	M SUAREZ	GSFC	A ARAKAWA	NAG 5 4420	95
31	UNIV OF CALIFORNIA - LOS ANGELES	R BEEBE	GSFC	D PAIGE	NAG 5 6272	96
31	UNIV OF CALIFORNIA - LOS ANGELES	R D MCPETERS	HQ	C R MECHOSO	NAGW 1021	99
31	UNIV OF CALIFORNIA - LOS ANGELES	W L GROSE	LARC	R P TURCO	NAG 1 2097	92
31	UNIV OF CALIFORNIA - LOS ANGELES	W LAU	GSFC	K N LIOU	NCC 5 385	101
31	UNIV OF CALIFORNIA - SAN DIEGO	B A WIELICKI	LARC	V RAMANATHAN	NAS 1 98141	111
31	UNIV OF CALIFORNIA - SAN DIEGO	D S MCDUGAL	LARC	F J VALERO	NAG 1 1965	102
31	UNIV OF CALIFORNIA - SAN DIEGO	D S MCDUGAL	LARC	F P VALERO	NAG 1 2044	102
31	UNIV OF CALIFORNIA - SAN DIEGO	G SMITH	GSFC	J B MINSTER	NAS 5 99006	111
31	UNIV OF CALIFORNIA - SAN DIEGO	J ARNOLD	MSFC	J ROADS	NAG 8 1516	110
31	UNIV OF CALIFORNIA - SAN DIEGO	J BERGSTALH	GSFC	D MENDIS	NAG 5 3781	104
31	UNIV OF CALIFORNIA - SAN DIEGO	J BERGSTALH	HQ	K MARTI	NAGW 4238	110
31	UNIV OF CALIFORNIA - SAN DIEGO	J C DODGE	GSFC	J J SIMPSON	NAG 5 6135	106
31	UNIV OF CALIFORNIA - SAN DIEGO	J L MUELLER	GSFC	R FROUIN	NAS 5 97135	111
31	UNIV OF CALIFORNIA - SAN DIEGO	J R HERMAN	GSFC	D LUBIN	NAG 5 8252	109
31	UNIV OF CALIFORNIA - SAN DIEGO	J WATZIM	GSFC	F VALCRO	NAS 5 99120	111
31	UNIV OF CALIFORNIA - SAN DIEGO	M J KURYLO	GSFC	R F WEISS	NAG 5 4023	104
31	UNIV OF CALIFORNIA - SAN DIEGO	M J KURYLO	HQ	R F WEISS	NAGW 2034	110
31	UNIV OF CALIFORNIA - SAN DIEGO	M REINECKER	GSFC	J O ROADS	NAG 5 8292	109
31	UNIV OF CALIFORNIA - SAN DIEGO	O W THIELE	GSFC	J O ROADS	NAG 5 4775	106
31	UNIV OF CALIFORNIA - SANTA BARBARA	G COLLATZ	GSFC	A S DENNING	NAS 5 97146	118
31	UNIV OF CALIFORNIA - SANTA BARBARA	R CAHALAN	GSFC	C GAUTHIER	NAG 5 4629	115
31	UNIV OF CALIFORNIA - SANTA CRUZ	S HOWARD	GSFC	D S VOGT	NAG 5 4445	120
31	UNIV OF CHICAGO	C H JACKMAN	GSFC	N NAKAMURA	NAG 5 2792	212
31	UNIV OF CHICAGO	C JACKMAN	GSFC	D NAKAMURA	NAG 5 6693	214
31	UNIV OF CHICAGO	O W THIELE	GSFC	R C SRIVASTAVA	NAG 5 4777	213
31	UNIV OF CHICAGO	R D MCPETERS	GSFC	G C TIAO	NAG 5 2849	212
31	UNIV OF CINCINNATI	B E ANDERSON	LARC	S K DURLAK	NGT 1 52140	425
31	UNIV OF CINCINNATI	G ASRAR	HQ	S ISLAM	NGT 30326	425
31	UNIV OF COLORADO - BOULDER	A DOUGLASS	GSFC	D AVALLONE	NAG 5 6629	138
31	UNIV OF COLORADO - BOULDER	B W MEESON	GSFC	B O PARKS	NAG 5 8840	144
31	UNIV OF COLORADO - BOULDER	C H JACKMAN	GSFC	D C FRITTS	NAG 5 2786	132
31	UNIV OF COLORADO - BOULDER	C H JACKMAN	GSFC	G J ROTTMAN	NAS 5 97145	145
31	UNIV OF COLORADO - BOULDER	C H JACKMAN	GSFC	J LONDON	NAG 5 3179	132
31	UNIV OF COLORADO - BOULDER	C JACKMAN	GSFC	D E THOMAS	NAG 5 6627	138
31	UNIV OF COLORADO - BOULDER	C JACKMAN	GSFC	S BAILEY	NAG 5 6683	138
31	UNIV OF COLORADO - BOULDER	C JACKMAN	GSFC	D ROTTMAN	NAG 5 6850	139

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
31	UNIV OF COLORADO - BOULDER	D BOGAN	GSFC	D R LEONE	NAG 5 4314	135
31	UNIV OF COLORADO - BOULDER	D J MCDUGAL	LARC	J A CURRY	NAG 1 2047	130
31	UNIV OF COLORADO - BOULDER	D RIND	GSFC	O TOON	NAG 5 6504	138
31	UNIV OF COLORADO - BOULDER	D S MCDUGAL	LARC	J CURRY	NAG 1 1708	130
31	UNIV OF COLORADO - BOULDER	E J JENSEN	ARC	I N SOKOLIK	NAG 2 1116	130
31	UNIV OF COLORADO - BOULDER	E P CONDON	ARC	D W TOOHEY	NAG 2 1306	131
31	UNIV OF COLORADO - BOULDER	E P CONDON	ARC	D W TOOHEY	NAG 2 1307	131
31	UNIV OF COLORADO - BOULDER	E P CONDON	ARC	L M AVALLONE	NAG 2 1124	130
31	UNIV OF COLORADO - BOULDER	E P CONDON	ARC	M J MILLS	NAG 2 1127	130
31	UNIV OF COLORADO - BOULDER	E P CONDON	ARC	O B TOON	NAG 2 1315	131
31	UNIV OF COLORADO - BOULDER	G L MADDREA	LARC	C E RANDALL	NAG 1 2187	130
31	UNIV OF COLORADO - BOULDER	G L MADDREA	LARC	O B TOON	NAG 1 2021	130
31	UNIV OF COLORADO - BOULDER	G L MADDREA	LARC	O B TOON	NAG 1 2165	130
31	UNIV OF COLORADO - BOULDER	I G NOLT	LARC	K F EVANS	NAG 1 2231	130
31	UNIV OF COLORADO - BOULDER	J A KAYE	GSFC	D L SALBY	NAG 5 6133	137
31	UNIV OF COLORADO - BOULDER	J A KAYE	HQ	M L SALBY	NAGW 3485	144
31	UNIV OF COLORADO - BOULDER	J BERGSTRALH	GSFC	D JAKOSKY	NAG 5 6431	138
31	UNIV OF COLORADO - BOULDER	J R CURRAN	GSFC	M L SALBY	NAG 5 8311	143
31	UNIV OF COLORADO - BOULDER	M D KING	GSFC	M A TOLBERT	NAG 5 8127	142
31	UNIV OF COLORADO - BOULDER	M KAVAYA	MSFC	R FREHLICH	NAG 8 1551	144
31	UNIV OF COLORADO - BOULDER	M MEYER	GSFC	D M JAKOSKY	NAG 5 4530	135
31	UNIV OF COLORADO - BOULDER	M MISCHENKO	GSFC	O B TOON	NAG 5 8362	143
31	UNIV OF COLORADO - BOULDER	M MISHCHENKO	GSFC	C E RANDALL	NAG 5 7784	142
31	UNIV OF COLORADO - BOULDER	R A SCHIFFER	GSFC	D L SALBY	NAG 5 4446	135
31	UNIV OF COLORADO - BOULDER	R E YOUNG	ARC	O B TOON	NCC 2 5300	146
31	UNIV OF COLORADO - BOULDER	R P HIPSKIND	ARC	O B TOON	NAG 2 1258	131
31	UNIV OF COLORADO - BOULDER	S J GOODMAN	MSFC	G S SCHARFEN	NAG 8 1093	144
31	UNIV OF COLORADO - BOULDER	V L GRIFFIN	GSFC	G ROTHMAN	NAS 5 98160	145
31	UNIV OF COLORADO - BOULDER	W WISCOMBE	GSFC	K EVANS	NAG 5 7679	141
31	UNIV OF CONNECTICUT	O W THIELE	GSFC	E N ANAGNOSTOU	NAG 5 7813	152
31	UNIV OF DELAWARE	O W THIELE	GSFC	C J WILLMOTT	NAG 5 4829	155
31	UNIV OF DENVER	B E ANDERSON	LARC	J C WILSON	NAG 1 1918	150
31	UNIV OF DENVER	C P RINSLAND	LARC	A GOLDMAN	NCC 1 48	151
31	UNIV OF DENVER	C P RINSLAND	LARC	F J MURCRAY	NCC 1 313	151
31	UNIV OF DENVER	E CONDON	ARC	J C WILSON	NCC 2 782	151
31	UNIV OF DENVER	E P CONDON	ARC	C A BROCK	NAG 2 1269	150
31	UNIV OF DENVER	E P CONDON	ARC	J C WILSON	NAG 2 1297	150
31	UNIV OF DENVER	E P CONDON	ARC	J C WILSON	NAG 2 1305	150
31	UNIV OF DENVER	E P CONDON	ARC	J M REEVES	NAG 2 1301	150
31	UNIV OF DENVER	G MADDREA	LARC	J C WILSON	NAS 1 96017	150
31	UNIV OF DENVER	R S HIPSKIND	ARC	D G MURCRAY	NAG 2 351	150
31	UNIV OF DENVER	R S HIPSKING	ARC	C A BROCK	NAG 2 1242	150
31	UNIV OF DENVER	R S HIPSKING	ARC	J C WILSON	NAG 2 1229	150
31	UNIV OF DENVER	S S WEGENER	ARC	J C WILSON	NCC 2 894	151
31	UNIV OF FLORIDA	J ARNOLD	MSFC	J W JONES	NCC 8 157	181
31	UNIV OF FLORIDA	L E LASHER	ARC	M A UMAN	NAG 2 667	179
31	UNIV OF FLORIDA	S HOWARD	GSFC	D GUSTAFSON	NAG 5 6378	179
31	UNIV OF GEORGIA	T MILLER	MSFC	D P LO	NAS 8 97081	198
31	UNIV OF HAWAII AT MANOA - HONOLULU	J M HOELL, JR.	LARC	B J HUEBERT	NAG 1 1763	198
31	UNIV OF HAWAII AT MANOA - HONOLULU	J M HOELL, JR.	LARC	D D CLARKE	NAG 1 1764	198
31	UNIV OF HAWAII AT MANOA - HONOLULU	J M HOELL	LARC	A D CLARKE	NCC 1 315	205
31	UNIV OF HAWAII AT MANOA - HONOLULU	J R RICHARDS	GSFC	T C OWENS	NAS 5 30951	205
31	UNIV OF HAWAII AT MANOA - HONOLULU	M MISHCHENKO	GSFC	A D CLARKE	NAG 5 8118	202
31	UNIV OF IDAHO - MOSCOW	L E LASHER	ARC	D G ATKINSON	NAG 2 961	207
31	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	G L MADDREA	LARC	C S GARDNER	NAS 1 19950	222
31	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	G MADDREA	LARC	D J WUBBLES	NAG 1 2221	218
31	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J A KAYE	GSFC	D J WUEBBLES	NAG 5 4044	219
31	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J MHOELL, JR.	LARC	R KOTAMARTHL	NCC 1 309	222
31	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	M MELLOTT	GSFC	G R SWENSON	NAG 5 8569	221
31	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R W STEWART	GSFC	D J WUEBBLES	NAG 5 4414	220
31	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R W STEWART	GSFC	D J WUEBBLES	NAG 5 8221	221
31	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	S GOGINENT	GSFC	J WALSH	NAG 5 6836	220
31	UNIV OF IOWA	G L MADDREA	LARC	G R CAMICHAEL	NAG 1 1907	233
31	UNIV OF IOWA	G M HEYMSFIELD	GSFC	W F KRAJEWSKI	NAG 5 4755	234
31	UNIV OF IOWA	J ARNOLD	MSFC	W F KRAJEWSKI	NAG 8 1425	235
31	UNIV OF IOWA	J L CHRISTENSEN	GSFC	D GURNETT	NAS 5 30730	235

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
31	UNIV OF IOWA	O THIELE	GSFC	W F KRAJEWSKI	NAG 5 2774	233
31	UNIV OF KANSAS	D BOGAN	GSFC	D E CRAVENS	NAG 5 4358	238
31	UNIV OF KANSAS	J HILL	LARC	C ALLEN	NAS 1 99052	238
31	UNIV OF LOUISVILLE	J SIMONDS	MSFC	M N FRENCH	NAG 8 1509	241
31	UNIV OF MARYLAND - COLLEGE PARK	A B CARLSON	LARC	R T PINKER	NAG 1 1831	260
31	UNIV OF MARYLAND - COLLEGE PARK	A B CARLSON	LARC	R T PINKER	NAG 1 1832	260
31	UNIV OF MARYLAND - COLLEGE PARK	A DOUGLASS	GSFC	D B CONSIDINE	NAG 5 6682	268
31	UNIV OF MARYLAND - COLLEGE PARK	D TOLL	GSFC	E VERMONTE	NAS 5 96062	274
31	UNIV OF MARYLAND - COLLEGE PARK	D WHITEMAN	GSFC	R ELINGTON	NCC 5 386	276
31	UNIV OF MARYLAND - COLLEGE PARK	G ASRAR	HQ	B KEDEM	NGT 30332	276
31	UNIV OF MARYLAND - COLLEGE PARK	G K SCHWEMMER	GSFC	R ELLINGSON	NCC 5 81	275
31	UNIV OF MARYLAND - COLLEGE PARK	G L MADDREA	LARC	A E DESSLER	NAG 1 1897	261
31	UNIV OF MARYLAND - COLLEGE PARK	G L MADDREA	LARC	R D HUDSON	NAG 1 2024	261
31	UNIV OF MARYLAND - COLLEGE PARK	G SCHWEMMER	GSFC	R G ELLINGSON	NCC 5 324	276
31	UNIV OF MARYLAND - COLLEGE PARK	G SOFFEN	GSFC	D ZHANG	NGT 5 52	277
31	UNIV OF MARYLAND - COLLEGE PARK	J FIORA	GSFC	D J LEWIS	NAG 5 8398	272
31	UNIV OF MARYLAND - COLLEGE PARK	J R HERMAN	GSFC	R D HUDSON	NAG 5 1696	262
31	UNIV OF MARYLAND - COLLEGE PARK	K H BERGMAN	GSFC	G L STENCHIKOV	NAG 5 3739	264
31	UNIV OF MARYLAND - COLLEGE PARK	M BALTUCK	GSFC	B DOUGLAS	NAG 5 4861	265
31	UNIV OF MARYLAND - COLLEGE PARK	M D HALL	GSFC	K E PICKERING	NAG 5 3678	263
31	UNIV OF MARYLAND - COLLEGE PARK	M E MAIDEN	HQ	R T PINKER	NAGW 4740	273
31	UNIV OF MARYLAND - COLLEGE PARK	M RIENECKER	GSFC	S NIGAM	NAG 5 8289	271
31	UNIV OF MARYLAND - COLLEGE PARK	O A THIELE	GSFC	B KEDEM	NAG 5 6630	268
31	UNIV OF MARYLAND - COLLEGE PARK	O W THIELE	GSFC	B KEDEM	NAG 5 2783	262
31	UNIV OF MARYLAND - COLLEGE PARK	P SELLERS	GSFC	C JUSTICE	NAS 5 31732	274
31	UNIV OF MARYLAND - COLLEGE PARK	R A SCHIFFER	GSFC	J TOWNSHEND	NAG 5 3496	263
31	UNIV OF MARYLAND - COLLEGE PARK	R F ADLER	GSFC	D ZHANG	NAG 5 7842	270
31	UNIV OF MARYLAND - COLLEGE PARK	R HARTLE	GSFC	F BAER	NCC 5 216	276
31	UNIV OF MARYLAND - COLLEGE PARK	R HARTLE	GSFC	F BAER	NCC 5 274	276
31	UNIV OF MARYLAND - COLLEGE PARK	R W STEWART	GSFC	D B CONSIDINE	NAG 5 8225	271
31	UNIV OF MARYLAND - COLLEGE PARK	R W STEWART	GSFC	D CONSIDINE	NAG 5 7419	269
31	UNIV OF MARYLAND - COLLEGE PARK	R W STEWART	GSFC	K PICKERING	NAG 5 7263	269
31	UNIV OF MARYLAND BALTIMORE COUNTY	C JACKMAN	GSFC	D MENARD	NAG 5 6681	278
31	UNIV OF MARYLAND BALTIMORE COUNTY	D STARR	GSFC	D PLATNICK	NAG 5 6996	278
31	UNIV OF MARYLAND BALTIMORE COUNTY	D WHITMAN	GSFC	H PLOTKIN	NAG 5 8201	279
31	UNIV OF MARYLAND BALTIMORE COUNTY	G L MADDREA	LARC	W W MCMILLAN	NAG 1 2022	278
31	UNIV OF MARYLAND BALTIMORE COUNTY	J HARTLEY	GSFC	S JANZ	NAS 5 99141	279
31	UNIV OF MARYLAND BALTIMORE COUNTY	M I MISCHENKO	GSFC	O TORRES	NAG 5 7774	279
31	UNIV OF MARYLAND BALTIMORE COUNTY	M J KURYLO	GSFC	D SIROTA	NAG 5 3907	278
31	UNIV OF MARYLAND BALTIMORE COUNTY	O W THIELE	GSFC	B S FERRIER	NAG 5 8231	279
31	UNIV OF MARYLAND BALTIMORE COUNTY	O W THIELE	GSFC	E AMITAI	NAG 5 7909	279
31	UNIV OF MARYLAND BALTIMORE COUNTY	O W THIELE	GSFC	R CIFELLI	NAG 5 7997	279
31	UNIV OF MARYLAND BALTIMORE COUNTY	R E HARTLE	GSFC	S H MELFI	NCC 5 92	279
31	UNIV OF MARYLAND BALTIMORE COUNTY	R E HARTLE	GSFC	S H MELFI	NCC 5 339	279
31	UNIV OF MARYLAND BALTIMORE COUNTY	W WISCOMBE	GSFC	A MARSHAK	NAG 5 7563	279
31	UNIV OF MARYLAND BALTIMORE COUNTY	W WISCOMBEE	GSFC	R PINCUS	NAG 5 7562	279
31	UNIV OF MARYLAND BALTIMORE	O W THEILE	GSFC	W S OLSON	NAG 5 8379	278
31	UNIV OF MASSACHUSETTS - AMHERST	J ARNOLD	MSFC	C T SWIFT	NAG 8 1490	310
31	UNIV OF MASSACHUSETTS - AMHERST	L E DEAYER	LARC	A D PARRISH	NAG 1 1022	308
31	UNIV OF MIAMI	C MCLAIN	GSFC	H GORDAN	NAS 5 31734	184
31	UNIV OF MIAMI	H OSEROFF	GSFC	H GORDON	NAS 5 31363	184
31	UNIV OF MIAMI	H OSEROFF	GSFC	R EVANS	NAS 5 31362	184
31	UNIV OF MIAMI	J HERMAN	GSFC	D M PROSPERO	NAG 5 7110	183
31	UNIV OF MIAMI	J HERMAN	GSFC	J PROSPERO	NAG 5 6154	183
31	UNIV OF MIAMI	J M HOELL	LARC	E S SALTZMAN	NAG 1 2002	182
31	UNIV OF MIAMI	M I MISHCHENKO	GSFC	J M PROSPERO	NAG 5 7674	183
31	UNIV OF MIAMI	R W STEWART	GSFC	J RODRIGUEZ	NAG 5 8222	183
31	UNIV OF MICHIGAN - ANN ARBOR	A M LARAR	LARC	W B COOK	NAG 1 1720	315
31	UNIV OF MICHIGAN - ANN ARBOR	C H JACKMAN	GSFC	P B HAYS	NAG 5 3180	317
31	UNIV OF MICHIGAN - ANN ARBOR	C H JACKMAN	GSFC	P B HAYS	NAG 5 7474	320
31	UNIV OF MICHIGAN - ANN ARBOR	C JACKMAN	GSFC	D HAYS	NAG 5 6709	320
31	UNIV OF MICHIGAN - ANN ARBOR	D BOGAN	GSFC	D R COMBI	NAG 5 4381	318
31	UNIV OF MICHIGAN - ANN ARBOR	D BOGAN	GSFC	D R COMBI	NAG 5 4714	318
31	UNIV OF MICHIGAN - ANN ARBOR	E M SULLIVAN	LARC	S R DRAYSON	NAS 1 18290	322
31	UNIV OF MICHIGAN - ANN ARBOR	G A SOFFEN	GSFC	S U ATREYA	NGT 5 27	324
31	UNIV OF MICHIGAN - ANN ARBOR	G L MADDREA	LARC	J E PENNER	NAG 1 2042	315

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
31	UNIV OF MICHIGAN - ANN ARBOR	G R MADDREA	LARC	M A CARROLL	NAG 1 2181	315
31	UNIV OF MICHIGAN - ANN ARBOR	J A KAYE	GSFC	J E PENNER	NAG 5 3771	317
31	UNIV OF MICHIGAN - ANN ARBOR	J BERGSTRALH	GSFC	D F NAGY	NAG 5 4912	319
31	UNIV OF MICHIGAN - ANN ARBOR	J BERGSTRALH	GSFC	P I GOMBOSI	NAG 5 4315	318
31	UNIV OF MICHIGAN - ANN ARBOR	J BERGSTRALH	HQ	A NAGY	NAGW 3962	321
31	UNIV OF MICHIGAN - ANN ARBOR	J M HOELL, JR.	LARC	D A CARROLL	NAG 1 1755	315
31	UNIV OF MICHIGAN - ANN ARBOR	J RICHARDS	GSFC	G ARIGNAN	NAS 5 99174	322
31	UNIV OF MICHIGAN - ANN ARBOR	J RICHARDS	GSFC	S K ATREYA	NAS 5 30119	322
31	UNIV OF MICHIGAN - ANN ARBOR	M I MISHCHENKO	GSFC	J PENNER	NAG 5 7681	320
31	UNIV OF MICHIGAN - ANN ARBOR	M S BURRELL	GSFC	S K ATREYA	NGT 5 87	324
31	UNIV OF MICHIGAN - ANN ARBOR	M W CASTLEMANN	MSFC	B GILCHRIST	NAS 8 37108	322
31	UNIV OF MICHIGAN - ANN ARBOR	R BEEBE	GSFC	P K ATREYA	NAG 5 4589	318
31	UNIV OF MICHIGAN - ANN ARBOR	R L FROST	GSFC	G CARIGNAN	NAS 5 30943	322
31	UNIV OF MICHIGAN - ANN ARBOR	R L FROST	GSFC	G CARIGNAN	NAS 5 30955	322
31	UNIV OF MICHIGAN - ANN ARBOR	R W STEWART	GSFC	J E PENNER	NAG 5 4101	318
31	UNIV OF MICHIGAN - ANN ARBOR	R W STEWART	GSFC	J E PENNER	NAG 5 7569	320
31	UNIV OF MICHIGAN - ANN ARBOR	R W STEWART	GSFC	M A CARROLL	NAG 5 3168	317
31	UNIV OF MICHIGAN - ANN ARBOR	S HOWARD	GSFC	D R COMBI	NAG 5 6187	319
31	UNIV OF MICHIGAN - ANN ARBOR	S WAY	GSFC	G CARIGNAN	NAS 5 32989	322
31	UNIV OF MISSOURI - COLUMBIA	A NEGRI	GSFC	K PALANIAPPAN	NAG 5 3900	335
31	UNIV OF MISSOURI - ROLLA	W R COFER	LARC	D E HAGEN	NAG 1 1632	336
31	UNIV OF MISSOURI - SAINT LOUIS	J BERGSTRALH	GSFC	D O	NAG 5 6091	337
31	UNIV OF NEBRASKA - LINCOLN	J BERGSTRALH	GSFC	D SAMSON	NAG 5 6010	344
31	UNIV OF NEW HAMPSHIRE - DURHAM	D TOLL	GSFC	J CAMPBELL	NAS 5 96063	354
31	UNIV OF NEW HAMPSHIRE - DURHAM	E P CONDON	ARC	R TALBOT	NAG 2 1101	348
31	UNIV OF NEW HAMPSHIRE - DURHAM	G W SACHSE	LARC	R C HARRISS	NCC 1 184	354
31	UNIV OF NEW HAMPSHIRE - DURHAM	J M HOELL, JR.	LARC	D W TALBOT	NAG 1 1761	348
31	UNIV OF NEW HAMPSHIRE - DURHAM	J M HOELL, JR.	LARC	R W TALBOT	NCC 1 298	354
31	UNIV OF NEW HAMPSHIRE - DURHAM	O W THIELE	GSFC	C VOROSMARTY	NAG 5 4785	350
31	UNIV OF NORTH CAROLINA - CHAPEL HILL	P A DECOLA	GSFC	R E MILLER	NAG 5 3946	406
31	UNIV OF NORTH CAROLINA	J ARNOLD	MSFC	S MARSHALL	NAG 8 1514	407
31	UNIV OF NORTH DAKOTA	D S MCDUGAL	LARC	M R POELLOT	NAG 1 1706	407
31	UNIV OF NORTHERN IOWA	F SIX	MSFC	T A HOCKEY	NAG 8 265	236
31	UNIV OF OREGON - EUGENE	I G NOLT	LARC	K PARK	NAG 1 2010	436
31	UNIV OF PITTSBURGH	J BERGSTRALH	GSFC	D JOHNSON	NAG 5 4116	453
31	UNIV OF PUERTO RICO - MAYAGUEZ	D DETROYE	GSFC	B G WEINER	NCC 5 215	557
31	UNIV OF RHODE ISLAND	E P CONDON	ARC	B HEIKES	NAG 2 1108	458
31	UNIV OF RHODE ISLAND	J L RAPER	LARC	B HEIKES	NCC 1 302	459
31	UNIV OF RHODE ISLAND	J M HOELL, JR.	LARC	D HEIKES	NAG 1 1757	458
31	UNIV OF SOUTH FLORIDA	H OSEROFF	GSFC	K R CARTER	NAS 5 31716	185
31	UNIV OF SOUTH FLORIDA	J L MUELLER	GSFC	K CARTER	NAS 5 97137	185
31	UNIV OF SOUTH FLORIDA	P BROCKMAN	LARC	D K KILLINGER	NAG 1 1104	184
31	UNIV OF SOUTHERN CALIFORNIA	D BOGAN	GSFC	P E SHEMANSKY	NAG 5 4159	124
31	UNIV OF SOUTHERN CALIFORNIA	J BERGSTRALH	GSFC	P E SHEMANSKY	NAG 5 4591	124
31	UNIV OF SOUTHERN CALIFORNIA	S HOWARD	GSFC	D JUDGE	NAG 5 6621	124
31	UNIV OF TEXAS - AUSTIN	G SMITH		R SCHUTZ	NAS 5 99005	496
31	UNIV OF TEXAS - AUSTIN	S HOWARD	GSFC	D GOLDSTEIN	NAG 5 4887	492
31	UNIV OF TEXAS - DALLAS	C JACKMAN	GSFC	C TESEN	NAG 5 3598	497
31	UNIV OF TEXAS - DALLAS	D BOGAN	GSFC	D R HODGES	NAG 5 4374	497
31	UNIV OF UTAH	D S MCDUGAL	LARC	G MACE	NAG 1 1903	501
31	UNIV OF UTAH	D S MCDUGAL	LARC	K N LIU	NAG 1 1719	501
31	UNIV OF UTAH	D S MCDUGAL	LARC	K SASSON	NAG 1 2083	501
31	UNIV OF UTAH	D S MCDUGAL	LARC	S K KRUEGER	NAG 1 1718	501
31	UNIV OF UTAH	D S MCDUGAL	LARC	S K KRUEGER	NAG 1 2048	501
31	UNIV OF UTAH	DS MCDUGAL	LARC	K SASSEN	NAG 1 1314	501
31	UNIV OF UTAH	E P CONDON	ARC	K SASSEN	NAG 2 1106	501
31	UNIV OF UTAH	J DODGE	GSFC	E ZIPSER	NAG 5 8339	502
31	UNIV OF UTAH	O W THIELE	GSFC	E J ZIPSER	NAG 5 8561	502
31	UNIV OF VIRGINIA	E V BROWELL	LARC	M GARSTANG	NAG 1 1774	521
31	UNIV OF VIRGINIA	J BERGSTRALH	GSFC	D E JOHNSON	NAG 5 4192	523
31	UNIV OF VIRGINIA	J H STORRIES	LARC	C T HEROKOVICH	NGT 1 52187	526
31	UNIV OF VIRGINIA	J R WANG	GSFC	J L HESLER	NAG 5 8749	525
31	UNIV OF VIRGINIA	K H BERGMAN	GSFC	J J DORNING	NAG 5 3973	523
31	UNIV OF VIRGINIA	L HILLIARD	GSFC	J HESLER	NAG 5 6507	524
31	UNIV OF VIRGINIA	M KING	GSFC	R J SWAP	NAG 5 7939	524
31	UNIV OF VIRGINIA	O W THIELE	GSFC	M GARSTANG	NAG 5 2061	522

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
31	UNIV OF VIRGINIA	O W THIELE	GSFC	M GARSTANG	NAG 5 4779	523
31	UNIV OF WASHINGTON	A DOUGLASS	GSFC	D R HOLTON	NAG 5 7090	537
31	UNIV OF WASHINGTON	A R DOUGLASS	GSFC	J R HOLTON	NAG 5 3188	534
31	UNIV OF WASHINGTON	C A HOSTELER	LARC	R J CHARLSON	NAG 1 2200	533
31	UNIV OF WASHINGTON	C H JACKMAN	GSFC	K TUNG	NAG 5 2802	534
31	UNIV OF WASHINGTON	D M WINKER	LARC	R J CHARLSON	NAG 1 1877	533
31	UNIV OF WASHINGTON	D S MCDUGAL	LARC	C S BRETHERTON	NAG 1 2072	533
31	UNIV OF WASHINGTON	D S MCDUGAL	LARC	P V HOBBS	NAG 1 1709	532
31	UNIV OF WASHINGTON	D S MCDUGAL	LARC	P V HOBBS	NAG 1 2079	533
31	UNIV OF WASHINGTON	D STARR	GSFC	P V HOBBS	NAG 5 4961	536
31	UNIV OF WASHINGTON	F HASLER	GSFC	N UNTERSTEINER	NAG 5 2878	534
31	UNIV OF WASHINGTON	G A SOFFEN	GSFC	J R HOLTON	NGT 5 32	541
31	UNIV OF WASHINGTON	G ASRAR	GSFC	T DUNNE	NGT 5 30004	541
31	UNIV OF WASHINGTON	G GIBSON	LARC	R J CHARLSON	NAS 1 99105	540
31	UNIV OF WASHINGTON	G L MADDREA	LARC	J R HOLTON	NAG 1 1803	532
31	UNIV OF WASHINGTON	H BLODGET	GSFC	A R GILLESPIE	NAS 5 31372	540
31	UNIV OF WASHINGTON	H J CHRISTIAN	MSFC	M BAKER	NAG 8 1150	539
31	UNIV OF WASHINGTON	J A KAYE	GSFC	S G WARREN	NAG 5 3779	535
31	UNIV OF WASHINGTON	J M SIMONDS	MSFC	R A BROWN	NAG 8 1424	539
31	UNIV OF WASHINGTON	M CHOU	GSFC	M B BAKER	NAG 5 4630	535
31	UNIV OF WASHINGTON	M D KING	GSFC	P V HOBBS	NAG 5 7819	538
31	UNIV OF WASHINGTON	M D KING	GSFC	P V HOBBS	NCC 5 326	540
31	UNIV OF WASHINGTON	M I MISHCHENKO	GSFC	D A HEGG	NAG 5 8684	539
31	UNIV OF WASHINGTON	M I MISHCHENKO	GSFC	P V HOBBS	NAG 5 7675	538
31	UNIV OF WASHINGTON	M MISHCHENKO	GSFC	D S COVERT	NAG 5 8363	539
31	UNIV OF WASHINGTON	O THIELE	GSFC	R A HOUZE	NAG 5 1599	533
31	UNIV OF WASHINGTON	O W THIELE	GSFC	J A NYSTUEN	NAG 5 7886	538
31	UNIV OF WASHINGTON	O W THIELE	GSFC	P V HOBBS	NAG 5 8109	538
31	UNIV OF WASHINGTON	O W THIELE	GSFC	R A HOUZE	NAG 5 4795	536
31	UNIV OF WISCONSIN	D SIX	MSFC	D PHANORD	NAG 8 1210	554
31	UNIV OF WISCONSIN - MADISON	A J NEGRI	GSFC	M H HITCHMAN	NCC 5 354	553
31	UNIV OF WISCONSIN - MADISON	B A BAUM	LARC	S A ACKERMAN	NAG 1 1870	546
31	UNIV OF WISCONSIN - MADISON	D S MCDUGAL	LARC	D WYLIE	NAG 1 1830	546
31	UNIV OF WISCONSIN - MADISON	D STARR	GSFC	D PINCUS	NAG 5 7661	550
31	UNIV OF WISCONSIN - MADISON	D TOLL	GSFC	P MENZEL	NAS 5 31367	552
31	UNIV OF WISCONSIN - MADISON	E KREINS	GSFC	H REVERCOMB	NAS 5 31375	552
31	UNIV OF WISCONSIN - MADISON	F R ROBERTSON	MSFC	G DIAK	NAG 8 1320	551
31	UNIV OF WISCONSIN - MADISON	G GIBSON	LARC	S A ACKERMAN	NAS 1 99106	552
31	UNIV OF WISCONSIN - MADISON	G L MADDREA	LARC	M H HITCHMAN	NAG 1 2162	546
31	UNIV OF WISCONSIN - MADISON	G L MADDREA	LARC	M H HITCHMAN	NAS 1 96030	552
31	UNIV OF WISCONSIN - MADISON	G SMITH	GSFC	C BENTLEY	NAS 5 99004	552
31	UNIV OF WISCONSIN - MADISON	J C BARNES	LARC	E W ELORANTA	NAG 1 1968	546
31	UNIV OF WISCONSIN - MADISON	J D SPINHIRNE	GSFC	E W ELORANTA	NAG 5 7572	550
31	UNIV OF WISCONSIN - MADISON	K H BERGMAN	GSFC	G WAHBA	NAG 5 3769	548
31	UNIV OF WISCONSIN - MADISON	L TRAVIS	HQ	J A FOLEY	NCC 5 365	553
31	UNIV OF WISCONSIN - MADISON	O W THIELE	GSFC	H E REVERCOMB	NAG 5 7418	550
31	UNIV OF WISCONSIN - MADISON	R BEEBE	GSFC	D M HARRIS	NAG 5 7626	550
31	UNIV OF WISCONSIN - MADISON	R C HUFFMAN, JR.	LARC	N APPLICABLE	NAS 1 96004	552
31	UNIV OF WISCONSIN - MADISON	R D MCPETERS	GSFC	G C REINSEL	NAG 5 2846	547
31	UNIV OF WISCONSIN - MADISON	S SCHUBERT	GSFC	D R JOHNSON	NAG 5 4398	548
31	UNIV OF WISCONSIN - MADISON	V E DELNORE	LARC	D P WYLIE	NAG 1 2196	546
31	UNIV OF WISCONSIN - MADISON	V E DELNORE	LARC	S A ACKERMAN	NAG 1 2073	546
31	UNIV OF WISCONSIN - MADISON	V E DELNORE	LARC	S A ACKERMAN	NAG 1 2209	546
31	UNIV OF WISCONSIN - MADISON	V S PARSON	LARC	H REVERCOMB	NAS 1 99117	552
31	UNIV OF WISCONSIN - MADISON	V S PARSONS	LARC	A L HUANG	NAG 1 1971	546
31	UNIV OF WISCONSIN - MADISON	V S PARSONS	LARC	H E REVERCOMB	NAS 1 99123	552
31	UNIV OF WISCONSIN - MADISON	W WISCOMBE	GSFC	R PINCUS	NAG 5 8639	551
31	UNIV OF WYOMING	A DOUGLASS	GSFC	D E HERVIG	NAG 5 6628	555
31	UNIV OF WYOMING	G L MADDREA	LARC	G VALI	NAS 1 18945	556
31	UNIV OF WYOMING	J G WELLS, JR.	LARC	T DESHLER	NAG 1 1623	555
31	UNIV OF WYOMING	J T SUTTLES	HQ	T DESHER	NAGW 3749	556
31	UTAH STATE UNIV	M D VANEK	LARC	R J HUPPI	NAS 1 98156	504
31	UTAH STATE UNIV	T MILLER	MSFC	R R GILLIES	NAS 8 97107	504
31	UTAH STATE UNIV	V S PARSONS	LARC	G E BINGHAM	NAS 1 99116	504
31	UTAH STATE UNIV	V S PARSONS	LARC	G E BINGHAM	NCC 1 265	504
31	UTAH STATE UNIV	W LAPENTA	MSFC	R R GILLIES	NCC 8 162	505

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
31	UTAH STATE UNIV	Y S PARSONS	LARC	G BINGHAM	NCC 1 307	504
31	VA POLYTECH INST & ST UNIV	B A WIELICKI	LARC	J R MAHAN	NAG 1 1958	528
31	VA POLYTECH INST & ST UNIV	D F YOUNG	LARC	J R MAHON	NAG 1 1970	528
31	VA POLYTECH INST & ST UNIV	D F YOUNG	LARC	M P HAEFFELIN	NAG 1 2106	528
31	VA POLYTECH INST & ST UNIV	E KIST, JR.	LARC	J R MAHAN	NAS 1 99128	530
31	VA POLYTECH INST & ST UNIV	H G MAAHS	LARC	M HYES	NAG 1 1912	528
31	VA POLYTECH INST & ST UNIV	J M SEATON	LARC	J BURTON	NGT 1 52184	531
31	VA POLYTECH INST & ST UNIV	J M SEATON	LARC	J R MOHAN	NGT 1 52202	531
31	VA POLYTECH INST & ST UNIV	R B LEE, III	LARC	G L SMITH	NAG 1 1959	528
31	VA POLYTECH INST & ST UNIV	R B LEE, III	LARC	J R MAHAN	NAG 1 2094	528
31	VA POLYTECH INST & ST UNIV	R B LEE	LARC	J R MAHAN	NAG 1 2128	529
31	VA POLYTECH INST & ST UNIV	R BENJAMIN LEE, III	LARC	J R MAHAN	NCC 1 243	530
31	VANDERBILT UNIV	R BEEBE	GSFC	D SAUMON	NAG 5 4988	470
31	WASHINGTON STATE UNIV	E HILSENATH	GSFC	G MOUNT	NAG 5 6153	543
31	WASHINGTON UNIV - ST	D BOGAN	GSFC	D FEGLEY	NAG 5 4564	338
31	WASHINGTON UNIV - ST	D BOGAN	GSFC	D FEGLEY	NAG 5 4565	338
31	WASHINGTON UNIV - ST	J BERGSTRALH	GSFC	D FEGLEY	NAG 5 6366	339
31	WASHINGTON UNIV - ST	P D HAMMER	ARC	W H SMITH	NCC 2 5159	340
31	WELLESLEY COLLEGE	S HOWARD	GSFC	D STARK	NAG 5 6222	310
31	WEST VIRGINIA UNIV	W L GROSE	LARC	R F TURCO	NAG 1 2096	543
31	WESTERN MARYLAND COLLEGE	G SCHWEMMER	GSFC	D GUERRA	NCC 5 194	280
31	WRIGHT STATE UNIV	D BEEBEE	GSFC	D FOX	NAG 5 6557	429
31	YALE UNIV	A J TUYAHOV	GSFC	R B SMITH	NAG 5 3853	153
32	ARIZONA STATE UNIV	F V FREY	GSFC	J H FINK	NAG 5 7573	25
32	ARIZONA STATE UNIV	G ASRAR	GSFC	S WILLIAMS	NGT 5 30007	27
32	ARIZONA STATE UNIV	G ASRAR	HQ	R I DOM	NGT 30347	27
32	ARIZONA STATE UNIV	P G ROGERS	GSFC	D FINK	NAG 5 3783	24
32	ARIZONA STATE UNIV	P G ROGERS	GSFC	D R CHRISTENSEN	NAG 5 3628	24
32	ARIZONA STATE UNIV	P G ROGERS	GSFC	R GREELEY	NAG 5 3909	24
32	ARIZONA STATE UNIV	P ROGERS	GSFC	D GREELEY	NAG 5 3908	24
32	ARIZONA STATE UNIV	P ROGERS	GSFC	D GREELEY	NAG 5 4156	24
32	ARIZONA STATE UNIV	R M HABERLE	ARC	R GREELEY	NCC 2 346	26
32	ARIZONA STATE UNIV	R M HABERLE	ARC	R GREELEY	NCC 2 1109	26
32	BLOOMSBURG UNIV	P ROGERS	GSFC	D K SHEPARD	NAG 5 4000	436
32	BOISE STATE UNIV	P ROGERS	GSFC	V OBERBECK	NAG 5 6090	207
32	BRIGHAM YOUNG UNIV	H V FREY	GSFC	D V ARNOLD	NAG 5 7711	500
32	BRIGHAM YOUNG UNIV	M BALTUCK	GSFC	D LONG	NAG 5 6312	500
32	BROWN UNIV	G VARS	GSFC	D W HEAD	NAG 5 4356	456
32	BROWN UNIV	P G ROGERS	GSFC	C M PIETERS	NAG 5 3871	456
32	BROWN UNIV	P G ROGERS	GSFC	C M PIETERS	NAG 5 4366	456
32	BROWN UNIV	P G ROGERS	GSFC	D W HEAD	NAG 5 3933	456
32	BROWN UNIV	P G ROGERS	GSFC	E PARMENTIER	NAG 5 3659	456
32	BROWN UNIV	P G ROGERS	GSFC	J W HEAD	NAG 5 4585	456
32	BROWN UNIV	P G ROGERS	GSFC	J W HEAD	NAG 5 4723	457
32	BROWN UNIV	P G ROGERS	GSFC	P H SCHULTZ	NAG 5 3872	456
32	BROWN UNIV	P G ROGERS	GSFC	P H SCHULTZ	NAG 5 3877	456
32	BROWN UNIV	P ROGERS	GSFC	D F MUSTARD	NAG 5 4162	456
32	CALIFORNIA INST OF TECH	H C BRINTON	HQ	D S BURNETT	NAGW 3592	49
32	CALIFORNIA INST OF TECH	J BOYCE	HQ	S EPSTEIN	NAGW 3883	49
32	CALIFORNIA INST OF TECH	J G GRANT	GSFC	T J AHRENS	NAG 5 3644	44
32	CALIFORNIA INST OF TECH	J G GRANT	GSFC	T J AHRENS	NAG 5 4206	45
32	CALIFORNIA INST OF TECH	J M SAUBER	GSFC	J STOCK	NCC 5 242	50
32	CALIFORNIA INST OF TECH	P G RODGERS	GSFC	D J STEVENSON	NAG 5 3765	44
32	CALIFORNIA INST OF TECH	P ROGERS	GSFC	D O MUHLEMAN	NAG 5 4614	46
32	CALIFORNIA INST OF TECH	P ROGERS	GSFC	K A FARLEY	NAG 5 6941	47
32	CENTRAL WASHINGTON UNIV	B G BILLS	GSFC	M MILLER	NAG 5 2908	532
32	CENTRAL WASHINGTON UNIV	H V FREY	GSFC	M MILLER	NAG 5 7672	532
32	CENTRAL WASHINGTON UNIV	M BALTUCK	HQ	M MILLER	NAGW 3826	532
32	COLLEGE OF CHARLESTON	P ROGERS	GSFC	D R COOMBS	NAG 5 4198	462
32	COLORADO STATE UNIV	E T ENGMAN	GSFC	G E LISTON	NAG 5 7560	128
32	COLORADO STATE UNIV	E T ENGMAN	GSFC	K ELDER	NAG 5 7558	128
32	COLUMBIA UNIV	B G BILLS	GSFC	J BEAVAN	NAG 5 1949	372
32	COLUMBIA UNIV	H V FREY	GSFC	J WEISSEL	NAG 5 2987	372
32	COLUMBIA UNIV	V GRIFFIN	GSFC	R C WILSON	NAS 5 97164	377
32	CORNELL UNIV	E T ENGMAN	GSFC	K H COOK	NAG 5 7497	382
32	CORNELL UNIV	J M BOYCE	HQ	P HELFENSTEIN	NAGW 4986	384

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
32	CORNELL UNIV	P G ROGERS	GSFC	D B CAMPBELL	NAG 5 4220	380
32	CORNELL UNIV	P G ROGERS	GSFC	D L TURCOTTE	NAG 5 4361	381
32	CORNELL UNIV	P G ROGERS	GSFC	J VEVERKA	NAG 5 3626	380
32	CORNELL UNIV	P G ROGERS	GSFC	P C THOMAS	NAG 5 3627	380
32	CORNELL UNIV	P G ROGERS	GSFC	P D NICHOLSON	NAG 5 3795	380
32	CORNELL UNIV	P G ROGERS	GSFC	P HELFENSTEIN	NAG 5 3639	380
32	CORNELL UNIV	P G ROGERS	GSFC	S W SQUIRES	NAG 5 4205	380
32	CORNELL UNIV	P ROGERS	GSFC	D A BURNS	NAG 5 3910	380
32	CORNELL UNIV	P ROGERS	GSFC	D B CAMPBELL	NAG 5 6783	382
32	CORNELL UNIV	P ROGERS	GSFC	D F BELL	NAG 5 4333	381
32	CORNELL UNIV	P ROGERS	GSFC	D VEVERKA	NAG 5 4502	381
32	DARTMOUTH COLLEGE	M BALTUCK	GSFC	R BRACKENRIDGE	NAG 5 3498	347
32	DENISON UNIV	D BOGAN	GSFC	D E MICKELSON	NAG 5 4341	415
32	FLA INTERNATIONAL UNIV	H V FREY	GSFC	D WHITMAN	NAG 5 3071	167
32	FLORIDA STATE UNIV	H V FREY	GSFC	J C CAIN	NAG 5 7577	174
32	FLORIDA STATE UNIV	P TAYLOR	GSFC	J CAIN	NAG 5 2970	173
32	GEORGE WASHINGTON UNIV	H V FREY	GSFC	L S WALTER	NAG 5 8664	159
32	GRAND VALLEY STATE UNIV	B BILLS	GSFC	J WEBER	NAG 5 6409	312
32	HARVARD UNIV	H V FREY	GSFC	J BLOXHAM	NAG 5 7616	289
32	HARVARD UNIV	M MEYER	GSFC	D H KNOLL	NAG 5 3645	287
32	HARVARD UNIV	P TAYLOR	GSFC	J BLOXAM	NAG 5 2971	286
32	INDIANA UNIV - BLOOMINGTON	H V FREY	GSFC	M W HAMBURGER	NAG 5 5167	224
32	INDIANA UNIV - BLOOMINGTON	H V FREY	GSFC	M W HAMBURGER	NAG 5 7619	225
32	INDIANA UNIV - BLOOMINGTON	H V FREY	GSFC	M W HAMBURGER	NAG 5 8582	225
32	INDIANA UNIV - BLOOMINGTON	P ROGERS	GSFC	D H DURISEN	NAG 5 4342	224
32	IOWA STATE UNIV	E T ENGMAN	GSFC	W J GUTOWSKI	NAG 5 7561	231
32	LAMAR UNIV	D MCKAY	JSC	D JORDAN	NAG 9 884	472
32	MASSACHUSETTS INST OF TECH	B WILDES	GSFC	A R WHITNEY	NAS 5 31728	304
32	MASSACHUSETTS INST OF TECH	D E SMITH	GSFC	M T ZUBER	NAG 5 3290	295
32	MASSACHUSETTS INST OF TECH	E ENGMAN	GSFC	R BRASS	NAG 5 7475	300
32	MASSACHUSETTS INST OF TECH	E KREINS	GSFC	D H STACLIN	NAS 5 31376	304
32	MASSACHUSETTS INST OF TECH	H FREY	GSFC	A NIELL	NAG 5 6063	298
32	MASSACHUSETTS INST OF TECH	H FREY	GSFC	B FIELD	NAG 5 6062	298
32	MASSACHUSETTS INST OF TECH	H FREY	GSFC	P MOLNAR	NAG 5 4807	297
32	MASSACHUSETTS INST OF TECH	H V FREY	GSFC	R E REILINGER	NAG 5 6145	298
32	MASSACHUSETTS INST OF TECH	J G GRANT	GSFC	D G FORD	NAG 5 4047	296
32	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	D R ZUBER	NAG 5 4555	297
32	MASSACHUSETTS INST OF TECH	P G ROGERS	GSFC	J WISDOM	NAG 5 3915	296
32	MASSACHUSETTS INST OF TECH	P G TAYLOR	GSFC	M MCNUTT	NAG 5 2928	294
32	MASSACHUSETTS INST OF TECH	P TAYLOR	GSFC	D HERRING	NAG 5 3550	295
32	MASSACHUSETTS INST OF TECH	W WILDES	GSFC	A NEILL	NAS 5 32353	304
32	MICHIGAN TECHNOLOGICAL UNIV	B CAMPBELL	GSFC	D FTACLAS	NAG 5 6310	314
32	MICHIGAN TECHNOLOGICAL UNIV	H V FREY	GSFC	G J BLUTH	NAG 5 7576	315
32	MICHIGAN TECHNOLOGICAL UNIV	M BALTUCK	HQ	G BLUTH	NAGW 5186	315
32	MICHIGAN TECHNOLOGICAL UNIV	M S BURRELL	GSFC	W I ROSE	NGT 5 76	315
32	MIDDLE TENNESSEE STATE UNIV	D SIX	MSFC	D HEFFINGTON	NAG 8 1211	465
32	NEW MEXICO STATE UNIV - LAS CRUCES	P ROGERS	GSFC	V SOLOMATOV	NAG 5 6897	365
32	NORTHERN ARIZONA UNIV	P ROGERS	GSFC	D K LUCCHITTA	NAG 5 4942	28
32	NORTHWESTERN UNIV	P ROGERS	GSFC	D S ROBINSON	NAG 5 4354	209
32	OHIO STATE UNIV	H CARR	SSC	J D BOSSLER	NAG13 42	420
32	OHIO STATE UNIV	H V FREY	GSFC	C K SHUM	NAG 5 7574	419
32	OHIO STATE UNIV	P T TAYLOR	GSFC	C K SHUM	NAG 5 6697	419
32	OHIO STATE UNIV	P TAYLOR	GSFC	R VON FRESE	NAG 5 2996	418
32	OHIO STATE UNIV	R H THOMAS	HQ	T J WILSON	NAGW 4985	420
32	OHIO STATE UNIV	S H GOGINENI	GSFC	T J WILSON	NAG 5 4250	418
32	PENN STATE UNIV	E T ENGMAN	GSFC	J L EVANS	NAG 5 7547	446
32	PENN STATE UNIV	H FREY	GSFC	D BURBANK	NAG 5 7646	446
32	PENN STATE UNIV	H FREY	GSFC	S FELDSTEIN	NAG 5 6207	445
32	PENN STATE UNIV	P ROGERS	GSFC	D MACKWELL	NAG 5 4165	444
32	PRINCETON UNIV	E T ENGMAN	GSFC	J A SMITH	NAG 5 7544	358
32	PRINCETON UNIV	H V FREY	GSFC	E WOOD	NAG 5 6511	357
32	PURDUE UNIV	J ARNOLD	MSFC	R OGLESBY	NAG 8 1515	228
32	PURDUE UNIV	R A LANGEL	GSFC	S KING	NAG 5 3118	227
32	RENSSELAER POLYTECH INST	P G ROGERS	GSFC	M J GAFFEY	NAG 5 3725	388
32	RICE UNIV	D HOLLAND	HQ	D HEYMANN	NGT 51376	477
32	RICE UNIV	F MARTIN	JSC	T E TEZDUYAR	NAG 9 1059	476

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
32	RUTGERS STATE UNIV - PISCATAWAY	E T ENGMAN	GSFC	D ROBINSON	NAG 5 7564	361
32	SAN DIEGO STATE UNIV	H CARR	SSC	D HERGERT	NCC13 16	56
32	SAN FRANCISCO STATE UNIV	P G ROGERS	GSFC	T L ROUSH	NAG 5 4128	56
32	SAN JOSE STATE UNIV	J GRANT	GSFC	D A MAROUF	NAG 5 4372	57
32	SOUTHERN ILLINOIS UNIV - CARBONDALE	H V FREY	GSFC	D RAVAT	NAG 5 7662	211
32	SOUTHERN ILLINOIS UNIV - CARBONDALE	P T TAYLOR	GSFC	D RAVAT	NAG 5 7771	211
32	SOUTHERN ILLINOIS UNIV - CARBONDALE	R A LANGEL	GSFC	D RAVAT	NAG 5 3120	211
32	SOUTHERN METHODIST UNIV	P ROGERS	GSFC	D L HANSEN	NAG 5 4562	478
32	SOUTHERN METHODIST UNIV	P ROGERS	GSFC	D L HANSEN	NAG 5 4609	478
32	STANFORD UNIV	D J DES MARAIS	ARC	D R LOWE	NCC 2 721	67
32	STANFORD UNIV	H V FREY	GSFC	H A ZEBKER	NAG 5 6148	64
32	STANFORD UNIV	H V FREY	GSFC	H ZEBKER	NAG 5 3441	63
32	STANFORD UNIV	H V FREY	GSFC	P SEGALL	NAG 5 6167	64
32	STANFORD UNIV	P G ROGERS	GSFC	G TYLER	NAG 5 3906	64
32	STATE UNIV OF NY - BUFFALO	B CAMPBELL	GSFC	D GRANT	NAG 5 4569	391
32	STATE UNIV OF NY - BUFFALO	G BILLS	GSFC	BURSIK	NAG 5 2273	391
32	STATE UNIV OF NY - BUFFALO	H V FREY	GSFC	M BARSIK	NAG 5 3142	391
32	STATE UNIV OF NY - BUFFALO	STOUTSENBERGER	GSFC	N SHERIDAN	NGT 5 70006	391
32	STATE UNIV OF NY COL - PURCHASE	P ROGER	GSFC	D GRANT	NAG 5 4157	394
32	STATE UNIV OF NY COL	D K RUSSELL	HQ	M F SHERIDAN	NGT 70410	395
32	STATE UNIV OF NY COL	H V FREY	GSFC	M BURSIK	NAG 5 7581	395
32	STATE UNIV OF NY COL	H V FREY	GSFC	M F SHERIDAN	NAG 5 7579	395
32	STATE UNIV OF NY COL	P G ROGERS	GSFC	D S KING	NAG 5 4544	395
32	THE AMERICAN UNIV	G A SOFFEN	GSFC	R B KAY	NGT 5 50003	162
32	THE UNIV OF CENTRAL FLORIDA	J QUINN	KSC	C GEIGER	NAG10 215	176
32	UNIV OF MINN	C HILL	SSC	M E BAUER	NAG13 99002	329
32	UNIV OF MINN	E T ENGMAN	GSFC	M PERSON	NAG 5 7599	328
32	UNIV OF MINN	J ARNOLD	MSFC	E FOUFOULA-GEORGIOU	NAG 8 1519	329
32	UNIV OF MINN	P ROGERS	GSFC	D L KOHLSTEDT	NAG 5 6797	328
32	UNIV OF TEXAS-PAN AMERICAN	A BEAM	MSFC	E LEMASTER	NAG 9 857	487
32	UNIV	R H THOMAS	GSFC	N LANCASTER	NAG 5 3987	345
32	U NACIONAL DE SAN AGUSTIN - AREQUIPA	D L CARTER	GSFC	N APPLICABLE	NAS 5 99121	559
32	UNIV OF ALASKA - FAIRBANKS	H V FREY	GSFC	J T FREYMUELLER	NAG 5 7659	22
32	UNIV OF ALASKA - FAIRBANKS	S C COHEN	GSFC	J FREYMUELLER	NCC 5 89	23
32	UNIV OF ARIZONA	E ENGMAN	GSFC	W SHUTTLEWORTH	NAG 5 7554	36
32	UNIV OF ARIZONA	H C BRINTON	HQ	W BOYNTON	NAGW 3373	39
32	UNIV OF ARIZONA	J R UNDERWOOD	HQ	H J MELOSH	NAGW 428	39
32	UNIV OF ARIZONA	P G ROGERS	GSFC	A MCEWEN	NAG 5 3632	31
32	UNIV OF ARIZONA	P G ROGERS	GSFC	J I LUNINE	NAG 5 4051	32
32	UNIV OF ARIZONA	P G ROGERS	GSFC	R G STROM	NAG 5 3914	31
32	UNIV OF ARIZONA	P G ROGERS	GSFC	R GREENBERG	NAG 5 3631	31
32	UNIV OF ARIZONA	P G ROGERS	GSFC	V R BAKER	NAG 5 3630	31
32	UNIV OF ARIZONA	P ROGERS	GSFC	D BENZ	NAG 5 4149	32
32	UNIV OF ARIZONA	P ROGERS	GSFC	D C PORCO	NAG 5 4451	33
32	UNIV OF ARIZONA	P ROGERS	GSFC	D H BROWN	NAG 5 3796	31
32	UNIV OF ARIZONA	P ROGERS	GSFC	D H LEVY	NAG 5 6663	34
32	UNIV OF ARIZONA	P ROGERS	GSFC	H MELOSH	NAG 5 6543	34
32	UNIV OF ARIZONA	P ROGERS	GSFC	L KESZTHELYI	NAG 5 7022	35
32	UNIV OF ARIZONA	T MORGAN	GSFC	R S MCMILLAN	NAG 5 6611	34
32	UNIV OF CALIFORNIA - BERKELEY	H V FREY	GSFC	R BURGMANN	NAG 5 7580	78
32	UNIV OF CALIFORNIA - DAVIS	H V FREY	GSFC	J MINSTER	NAG 5 3001	85
32	UNIV OF CALIFORNIA - DAVIS	R MCKELLIP	SSC	D W TATE	NAG13 99023	86
32	UNIV OF CALIFORNIA - LOS ANGELES	E T ENGMAN	GSFC	L C SMITH	NAG 5 7555	97
32	UNIV OF CALIFORNIA - LOS ANGELES	H BRINTON	HQ	D PAIGE	NAGW 4327	100
32	UNIV OF CALIFORNIA - LOS ANGELES	J BREDEKAMP	GSFC	D F KERRIDGE	NAG 5 8470	99
32	UNIV OF CALIFORNIA - LOS ANGELES	J D RUMNEL	HQ	J W SCHOPF	NAGW 2147	99
32	UNIV OF CALIFORNIA - LOS ANGELES	P G ROGERS	GSFC	D A PAIGE	NAG 5 3864	94
32	UNIV OF CALIFORNIA - LOS ANGELES	P G ROGERS	GSFC	G SCHUBERT	NAG 5 3863	93
32	UNIV OF CALIFORNIA - LOS ANGELES	P G ROGERS	GSFC	W M KAULA	NAG 5 3956	94
32	UNIV OF CALIFORNIA - LOS ANGELES	P ROGERS	GSFC	D A PAIGE	NAG 5 4449	95
32	UNIV OF CALIFORNIA - SAN DIEGO	B A WIELICKI	LARC	V RAMANATHAN	NAG 1 1259	102
32	UNIV OF CALIFORNIA - SAN DIEGO	B CAMPBELL	GSFC	P L BADA	NAG 5 4938	106
32	UNIV OF CALIFORNIA - SAN DIEGO	B G BILLS	GSFC	J B MINSTER	NAG 5 1910	103
32	UNIV OF CALIFORNIA - SAN DIEGO	B G BILLS	GSFC	Y BOCK	NAG 5 1917	103
32	UNIV OF CALIFORNIA - SAN DIEGO	H B FREY	GSFC	R L PARKER	NAG 5 7612	108
32	UNIV OF CALIFORNIA - SAN DIEGO	H FREY	GSFC	H JOHNSON	NCC 5 230	112

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	C G CONSTABLE	NAG 5 7614	108
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	D C AGNEW	NAG 5 6149	106
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	D T SANDWELL	NAG 5 5176	106
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	J B RAND	NAG 5 6150	106
32	UNIV OF CALIFORNIA - SAN DIEGO	P T TAYLOR	GSFC	G E BACKUS	NAG 5 2967	103
32	UNIV OF CALIFORNIA - SAN DIEGO	P TAYLOR	GSFC	C CONSTABLE	NAG 5 2968	103
32	UNIV OF CALIFORNIA - SANTA BARBARA	G ASRAR	HQ	T DUNNE	NGT 30357	119
32	UNIV OF CALIFORNIA - SANTA BARBARA	H V FREY	GSFC	O A CHADWICK	NAG 5 3024	115
32	UNIV OF CALIFORNIA - SANTA BARBARA	J G GRANT	GSFC	S J PEALE	NAG 5 3646	115
32	UNIV OF CALIFORNIA - SANTA BARBARA	M MEYER	GSFC	D M AWRAMIK	NAG 5 4460	115
32	UNIV OF CALIFORNIA - SANTA BARBARA	R MCKELLIP	JSC	O CHADWICK	NAG13 99025	118
32	UNIV OF CALIFORNIA - SANTA CRUZ	H V FREY	GSFC	R ANDERSON	NAG 5 3005	120
32	UNIV OF CHARLESTON -WEST VIRGINIA	D A MORRISON	JSC	C COOMBS	NGT 9 24	543
32	UNIV OF CHICAGO	P R MAHAFFY	HQ	T ECONOMU	NAGW 1847	215
32	UNIV OF COLORADO - BOULDER	A T CHANG	GSFC	R L ARMSTRONG	NAG 5 4506	135
32	UNIV OF COLORADO - BOULDER	D J HARDING	GSFC	R BILHAM	NAG 5 3072	132
32	UNIV OF COLORADO - BOULDER	E T ENGMAN	GSFC	A FREI	NAG 5 7543	141
32	UNIV OF COLORADO - BOULDER	G ASRAR	GSFC	J B RUNDLE	NGT 5 30025	147
32	UNIV OF COLORADO - BOULDER	H FREY	GSFC	K LARSON	NAG 5 6147	137
32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	J B RUNDLE	NAG 5 5168	137
32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	J M WAHR	NAG 5 7703	141
32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	K MUELLER	NAG 5 3320	133
32	UNIV OF COLORADO - BOULDER	P G ROGERS	GSFC	B M JAKOSKY	NAG 5 3763	133
32	UNIV OF COLORADO - BOULDER	P ROGERS	GSFC	D R STEWART	NAG 5 4163	134
32	UNIV OF COLORADO - BOULDER	P ROGERS	GSFC	M T MELLON	NAG 5 7071	140
32	UNIV OF COLORADO - BOULDER	P T TAYLOR	GSFC	J WAHR	NAG 5 3143	132
32	UNIV OF DELAWARE - BARTOL RES. INST	E T ENGMAN	GSFC	D LEATHERS	NAG 5 7545	157
32	UNIV OF FLORIDA	P ROGERS	GSFC	D GUSTAFSON	NAG 5 4996	179
32	UNIV OF FLORIDA	P ROGERS	HQ	D F DERMOTT	NAG 5 4531	179
32	UNIV OF GEORGIA	E T ENGMAN	GSFC	T L MOTE	NAG 5 8469	198
32	UNIV OF HAWAII AT MANOA - HONOLULU	D HOLLAND	HQ	K KEIL	NGT 51652	206
32	UNIV OF HAWAII AT MANOA - HONOLULU	H C BRINTON	HQ	K KEIL	NAGW 3281	204
32	UNIV OF HAWAII AT MANOA - HONOLULU	H F FREY	GSFC	P J MOUGINIS-MARK	NAG 5 3000	199
32	UNIV OF HAWAII AT MANOA - HONOLULU	H V FREY	GSFC	P J MOUGINIS-MARK	NAG 5 7578	202
32	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	E R HAWKE	NAG 5 3875	200
32	UNIV OF HAWAII AT MANOA - HONOLULU	J G GRANT	GSFC	S J ROWLAND	NAG 5 4127	200
32	UNIV OF HAWAII AT MANOA - HONOLULU	J GRANT	GSFC	S K ROWLAND	NAG 5 7963	202
32	UNIV OF HAWAII AT MANOA - HONOLULU	J R UNDERWOOD	HQ	P M MARK	NAGW 437	203
32	UNIV OF HAWAII AT MANOA - HONOLULU	J UNDERWOOD	HQ	B R HAWKE	NAGW 237	203
32	UNIV OF HAWAII AT MANOA - HONOLULU	P G ROGERS	GSFC	B R HAWKE	NAG 5 3635	199
32	UNIV OF HAWAII AT MANOA - HONOLULU	P G ROGERS	GSFC	F P FANALE	NAG 5 4150	200
32	UNIV OF HAWAII AT MANOA - HONOLULU	P G ROGERS	GSFC	J F BELL	NAG 5 3625	199
32	UNIV OF HAWAII AT MANOA - HONOLULU	P G ROGERS	GSFC	P G LUCEY	NAG 5 3766	200
32	UNIV OF HAWAII AT MANOA - HONOLULU	P ROGERS	GSFC	P LUCEY	NAG 5 6759	201
32	UNIV OF HAWAII AT MANOA - HONOLULU	P ROGERS	GSFC	T OWEN	NAG 5 6829	201
32	UNIV OF HAWAII AT MANOA - HONOLULU	R H THOMAS	GSFC	P MOUGINIS-MARK	NAG 5 4257	200
32	UNIV OF HAWAII AT MANOA - HONOLULU	R H THOMAS	HQ	P MOUGINIS-MARK	NAGW 4965	205
32	UNIV OF HAWAII AT MANOA - HONOLULU	T A MAXWELL	HQ	T OWEN	NAGW 2153	204
32	UNIV OF HOUSTON - CLEAR LAKE	R T SAVELY	JSC	J MAIER	NCC 9 72	489
32	UNIV OF HOUSTON - DOWNTOWN	E K GIBSON	JSC	P A MORRIS-SMITH	NAG 9 1113	489
32	UNIV OF HOUSTON - DOWNTOWN	E K GIBSON	JSC	P A MORRIS-SMITH	NAG 9 1114	489
32	UNIV OF ILLINOIS - CHICAGO CIRCLE	E T ENGMAN	GSFC	R D CRAGO	NAG 5 7600	217
32	UNIV OF KANSAS	R MCKALLIP	SSC	M JAKUBAUSKAS	NAG13 99019	238
32	UNIV OF MARYLAND - COLLEGE PARK	B G BILLS	GSFC	H PAIK	NAG 5 3104	263
32	UNIV OF MARYLAND - COLLEGE PARK	E T ENGMAN	GSFC	Y XUE	NAG 5 7567	269
32	UNIV OF MARYLAND - COLLEGE PARK	J B GARVIN	GSFC	R DUBAYAH	NAG 5 8105	271
32	UNIV OF MARYLAND - COLLEGE PARK	J GARVIN	GSFC	R DUBAYAH	NAG 5 6509	268
32	UNIV OF MASSACHUSETTS - AMHERST	P G ROGERS	GSFC	G E MCGILL	NAG 5 3789	309
32	UNIV OF MASSACHUSETTS - AMHERST	P ROGERS	GSFC	D E MCGILL	NAG 5 4373	309
32	UNIV OF MASSACHUSETTS - AMHERST	P ROGERS	GSFC	G MCGILL	NAG 5 4999	309
32	UNIV OF MASSACHUSETTS - AMHERST	T MORGAN	GSFC	F SCHOERB	NAG 5 6612	309
32	UNIV OF MEMPHIS	H V FREY	GSFC	M ELLIS	NAG 5 2995	467
32	UNIV OF MEMPHIS	H V FREY	GSFC	M ELLIS	NAG 5 7617	467
32	UNIV OF MIAMI	B G BILLS	GSFC	C HARRISON	NAG 5 1945	182
32	UNIV OF MIAMI	B G BILLS	GSFC	T H DIXON	NAG 5 2207	182
32	UNIV OF MIAMI	H V FREY	GSFC	C G HARRISON	NAG 5 7668	183

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
32	UNIV OF MIAMI	H V FREY	GSFC	T DIXON	NAG 5 3036	182
32	UNIV OF MIAMI	P T TAYLOR	GSFC	C HARRISON	NAG 5 2969	182
32	UNIV OF MIAMI	S H GOGINENI	GSFC	T H DIXON	NAG 5 4025	182
32	UNIV OF MIAMI	S H GOGINENI	GSFC	T H DIXON	NAG 5 6033	182
32	UNIV OF MISSISSIPPI - MEDICAL CTR	H V FREY	GSFC	J K JOHNSON	NAG 5 7671	334
32	UNIV OF MISSOURI - COLUMBIA	H FREY	GSFC	J F ENGELN	NAG 5 6685	336
32	UNIV OF MONTANA	E K GIBSON	JSC	N C HINMAN	NAG 9 1112	343
32	UNIV OF NEVADA - RENO	R WILLIAMS	HQ	R A SCHULTZ	NAGW 4151	346
32	UNIV OF NEW HAMPSHIRE - DURHAM	E T ENGMAN	GSFC	L D DINGMAN	NAG 5 7601	352
32	UNIV OF NEW MEXICO-ALBUQUERQUE	E K GIBSON	JSC	J PAPIKE	NAG 9 1111	368
32	UNIV OF NEW MEXICO-ALBUQUERQUE	J BOYCE	HQ	F RIETMEIJER	NAGW 3626	368
32	UNIV OF NEW MEXICO-ALBUQUERQUE	J H JONES	JSC	J J PAPIKE	NGT 9 31	369
32	UNIV OF NORTH DAKOTA	E T ENGMAN	GSFC	T L MOTE	NAG 5 7546	408
32	UNIV OF PITTSBURGH	J G GRANT	GSFC	D A CROWN	NAG 5 3642	453
32	UNIV OF PITTSBURGH	P G ROGERS	GSFC	D A CROWN	NAG 5 4037	453
32	UNIV OF PITTSBURGH	P G ROGERS	GSFC	S W HAPKE	NAG 5 3723	453
32	UNIV OF PUERTO RICO - MAYAGUEZ	H FREY	GSFC	G MATTIOLI	NAG 5 6031	556
32	UNIV OF SOUTH CAROLINA-COLUMBIA	J BOYCE	HQ	J SHERVAIS	NAGW 3637	463
32	UNIV OF TEXAS - AUSTIN	A NURRIDIN	GSFC	C WILSON	NGT 5 50004	497
32	UNIV OF TEXAS - AUSTIN	B G BILLS	GSFC	B TAPLEY	NAG 5 1939	491
32	UNIV OF TEXAS - AUSTIN	B G BILLS	GSFC	C R WILSON	NAG 5 1929	491
32	UNIV OF TEXAS - AUSTIN	H FREY	GSFC	M CHENG	NAG 5 5170	492
32	UNIV OF TEXAS - AUSTIN	H HASAN	GSFC	L M TRAFTON	NAG 5 6754	493
32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	J C CARTER	NAG 5 7693	494
32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	J C GIBEAUT	NAG 5 7660	493
32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	J G PAINE	NAG 5 7582	493
32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	R R EM	NAG 5 5171	493
32	UNIV OF TEXAS - AUSTIN	M S BURRELL	GSFC	J S FAMIGLIETTI	NGT 5 81	497
32	UNIV OF VIRGINIA	D J HARDING	GSFC	H H SHUGART	NAG 5 3112	522
32	UNIV OF VIRGINIA	P G ROGERS	GSFC	A D HOWARD	NAG 5 3931	522
32	UNIV OF VIRGINIA	P G ROGERS	GSFC	R E JOHNSON	NAG 5 3633	522
32	UNIV OF VIRGINIA	P ROGERS	GSFC	D A BARAGIOLA	NAG 5 4332	523
32	UNIV OF WASHINGTON	E T ENGMAN	GSFC	L TSANG	NAG 5 7495	538
32	UNIV OF WASHINGTON	E T ENGMAN	GSFC	W J PLANT	NAG 5 7550	538
32	UNIV OF WASHINGTON	H FREY	GSFC	A GILLESPIE	NAG 5 6067	536
32	UNIV OF WASHINGTON	H FREY	GSFC	D LETTENMAIER	NAG 5 6505	537
32	UNIV OF WISCONSIN - MADISON	B CAMPBELL	GSFC	D A SROMOVSKY	NAG 5 6248	549
32	UNIV OF WISCONSIN - MADISON	H CARR	SSC	T M LILLENSAND	NCC13 17	553
32	UTAH STATE UNIV	E T ENGMAN	GSFC	D G TARBOTON	NAG 5 7597	504
32	WASHINGTON STATE UNIV	J G GRANT	GSFC	D HUDSON	NAG 5 4035	542
32	WASHINGTON UNIV - ST	B CAMPBELL	GSFC	D FEGLEY	NAG 5 6125	339
32	WASHINGTON UNIV - ST	H C BRINTON	HQ	C M HOHENBERG	NAGW 3344	340
32	WASHINGTON UNIV - ST	H V FREY	GSFC	R E ARVIDSON	NAG 5 2982	338
32	WASHINGTON UNIV - ST	H V FREY	GSFC	R E ARVIDSON	NAG 5 7613	339
32	WASHINGTON UNIV - ST	J BOYCE	HQ	R M WALKER	NAGW 3371	340
32	WASHINGTON UNIV - ST	P G ROGERS	GSFC	R E ARVIDSON	NAG 5 3870	338
32	WASHINGTON UNIV - ST	P G ROGERS	GSFC	W B MCKINNON	NAG 5 3657	338
32	WASHINGTON UNIV - ST	P ROGERS	GSFC	B L JOLLIFF	NAG 5 6784	339
32	WASHINGTON UNIV - ST	P ROGERS	GSFC	D J PHILLIPS	NAG 5 4448	338
32	WASHINGTON UNIV - ST	P ROGERS	GSFC	R ARVIDSON	NAG 5 6756	339
32	WELLESLEY COLLEGE	J UNDERWOOD	HQ	R G FRENCH	NAGW 1368	310
32	WELLESLEY COLLEGE	P G ROGERS	GSFC	R G FRENCH	NAG 5 4046	310
33	CALIFORNIA INST OF TECH	S R LONG	GSFC	T Y WU	NAG 5 5207	46
33	CTR FOR ENVIR & ESTU STUDIES U OF MD	C MCCLAIN	GSFC	D G CAPONE	NAS 5 97131	249
33	COLUMBIA UNIV	A J BUSALACCHI	GSFC	D CHEN	NCC 5 225	378
33	COLUMBIA UNIV	G ASRAR	GSFC	B P SCHOSSER	NGT 5 30016	378
33	COLUMBIA UNIV	M WEI	GSFC	J BISHOP	NAG 5 6450	375
33	DUKE UNIV	J CAMPBELL	GSFC	R T BARBER	NAG 5 6988	397
33	FLA INTERNATIONAL UNIV	K R ARRIGO	GSFC	L L RICHARDSON	NAG 5 3124	167
33	FLORIDA STATE UNIV	E J LINDSTROM	GSFC	W DEWAR	NAG 5 4813	174
33	FLORIDA STATE UNIV	E LINDSTROM	GSFC	J J O	NAG 5 7254	174
33	FLORIDA STATE UNIV	G S LAGERLOEF	HQ	J J O	NAGW 985	175
33	FLORIDA STATE UNIV	M RIENECKER	GSFC	W WEWAR	NAG 5 8291	174
33	FLORIDA STATE UNIV	N MAYNARD	HQ	W K DEWAR	NAGW 4883	175
33	FLORIDA STATE UNIV	R E MURPHY	HQ	R IVERSON	NAGW 3495	175
33	FLORIDA STATE UNIV	W ESAIAS	GSFC	R L IVERSON	NAG 5 7618	174

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
33	GEORGE MASON UNIV	M RIENECKER	GSFC	P SCHOPF	NCC 5 245	509
33	HAMPTON UNIV	B WHITE	HQ	B A ADESENYA	NAG13 44	512
33	JOHNS HOPKINS UNIV	S R LONG	GSFC	H SALMUN	NAG 5 5193	253
33	JOHNS HOPKINS UNIV	S R LONG	GSFC	J FIELD	NAG 5 5150	253
33	JOHNS HOPKINS UNIV	S R LONG	GSFC	O PHILLIPS	NAG 5 5047	252
33	MASSACHUSETTS INST OF TECH	B C DOUGLAS	GSFC	C I WUNSCH	NAG 5 3724	295
33	MASSACHUSETTS INST OF TECH	B C DOUGLAS	GSFC	P W RIZZOLI	NAG 5 4655	297
33	MASSACHUSETTS INST OF TECH	J A YODER	GSFC	S W CHISHOLM	NAG 5 3727	296
33	NORTH CAROLINA STATE UNIV	D E WICKLAND	HQ	D KAMYKOWSKI	NAGW 3575	404
33	NORTH CAROLINA STATE UNIV	J A YODER	GSFC	D KAMYKOWSKI	NAG 5 6586	404
33	OLD DOMINION UNIV	C MCCLAIN	GSFC	G F COTA	NAS 5 97132	518
33	OLD DOMINION UNIV	R E MURPHY	HQ	E HOFMANN	NAGW 3550	518
33	OREGON STATE UNIV	C KOBLINSKY	GSFC	E BOSS	NAG 5 8732	434
33	OREGON STATE UNIV	C MCCLAIN	GSFC	J R ZANEVELD	NAS 5 97129	435
33	OREGON STATE UNIV	F G HALL	GSFC	D F BENNET	NAG 5 3963	432
33	OREGON STATE UNIV	H OSEROFF	GSFC	M R ABBOTT	NAS 5 31360	434
33	OREGON STATE UNIV	J A YODER	GSFC	M R ABBOTT	NAG 5 4947	433
33	OREGON STATE UNIV	K ARRIGO	GSFC	J C JENNINGS	NAG 5 8431	434
33	PENN STATE UNIV	M T FLYNN	ARC	C FISHER	NCC 2 5341	449
33	SAN DIEGO STATE UNIV	C R MCCLAIN	GSFC	J L MUELLER	NAS 5 97126	56
33	STEVENS INST OF TECH	C MCCLAIN	GSFC	K STAMNES	NAS 5 99238	363
33	TEXAS A&M UNIV	J YODER	GSFC	N TINDALE	NAG 5 6588	480
33	UNIV OF MINN	M T FLYNN	ARC	W E SEYFRIED	NCC 2 5340	330
33	UNIV OF ALASKA - FAIRBANKS	C MCCLAIN	GSFC	D L ESLINGER	NAS 5 97133	23
33	UNIV OF ALASKA - FAIRBANKS	C MCCLAIN	GSFC	K STAMNES	NAS 5 97138	23
33	UNIV OF ALASKA - FAIRBANKS	R H THOMAS	HQ	D L JOHNSON	NAGW 5205	22
33	UNIV OF CALIFORNIA - IRVINE	S R LONG	GSFC	J N YANG	NAG 5 5149	90
33	UNIV OF CALIFORNIA - LOS ANGELES	B C DOUGLAS	GSFC	J C MCWILLIAMS	NAG 5 3982	94
33	UNIV OF CALIFORNIA - SAN DIEGO	A J BUSALACCHI	GSFC	F VALERO	NGT 5 42	113
33	UNIV OF CALIFORNIA - SAN DIEGO	C KOBLINSKY	GSFC	P P NILER	NAG 5 8351	109
33	UNIV OF CALIFORNIA - SAN DIEGO	C R MCCLAIN	GSFC	B G MITCHELL	NAS 5 97130	111
33	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTROM	GSFC	W WHITE	NAG 5 7096	107
33	UNIV OF CALIFORNIA - SAN DIEGO	G ASRAR	GSFC	B MITCHELL	NGT 5 30036	113
33	UNIV OF CALIFORNIA - SAN DIEGO	J A YODER	GSFC	R KEELING	NAG 5 6179	106
33	UNIV OF CALIFORNIA - SAN DIEGO	J MUELLER	GSFC	K STAMNES	NAS 5 97139	111
33	UNIV OF CALIFORNIA - SAN DIEGO	S LONG	GSFC	D KLINKE	NAG 5 5217	106
33	UNIV OF CALIFORNIA - SANTA BARBARA	C MCCLAIN	GSFC	D A SIEGEL	NAS 5 97125	118
33	UNIV OF CALIFORNIA - SANTA BARBARA	C MCCLAIN	GSFC	T D DICKEY	NAS 5 97127	118
33	UNIV OF CALIFORNIA - SANTA BARBARA	C R MCCLAIN	GSFC	D SIEGEL	NAS 5 99083	118
33	UNIV OF CALIFORNIA - SANTA BARBARA	H OSEROFF	GSFC	Z WAN	NAS 5 31370	118
33	UNIV OF CALIFORNIA - SANTA BARBARA	M R LEWIS	HQ	R C SMITH	NAGW 290	117
33	UNIV OF CALIFORNIA - SANTA BARBARA	N MAYNARD	HQ	T D DICKEY	NAGW 5222	118
33	UNIV OF CALIFORNIA - SANTA BARBARA	R H THOMAS	GSFC	R C SMITH	NAG 5 4126	115
33	UNIV OF COLORADO - BOULDER	E LINDSTROM	GSFC	W EMERY	NAG 5 7365	140
33	UNIV OF DELAWARE	S K RUNCO	JSC	V KLEMAS	NAG 9 989	156
33	UNIV OF GEORGIA	G ASRAR	GSFC	B BINDER	NGT 5 30017	198
33	UNIV OF HAWAII AT MANOA - HONOLULU	C MCCLAIN	GSFC	J PORTER	NAS 5 97136	205
33	UNIV OF HAWAII AT MANOA - HONOLULU	G ASRAR	HQ	B QUI	NAGW 5250	205
33	UNIV OF HAWAII AT MANOA - HONOLULU	R G KIRK	GSFC	L MAGAARD	NAG 5 7485	202
33	UNIV OF HAWAII SYSTEM	R H THOMAS	GSFC	P FLAMENT	NAG 5 4143	206
33	UNIV OF MARYLAND - COLLEGE PARK	E LINDSTROM	GSFC	R WAJSOWICZ	NAG 5 3960	264
33	UNIV OF MARYLAND - COLLEGE PARK	G ASRAR	HQ	M A FAHNESTOCK	NAGW 5244	274
33	UNIV OF MARYLAND - COLLEGE PARK	N MAYNARD	GSFC	L WANG	NAG 5 4186	264
33	UNIV OF MARYLAND BALTIMORE COUNTY	W SCHIMMERLING	GSFC	E BALCER-KUBICZEK	NAG 5 6555	278
33	UNIV OF MIAMI	G ASRAR	GSFC	O BROWN	NGT 5 30011	184
33	UNIV OF MIAMI	G ASRAR	GSFC	T DIXON	NGT 5 30027	184
33	UNIV OF MIAMI	H OSEROFF	GSFC	O B BROWN	NAS 5 31361	183
33	UNIV OF NEW ENGLAND	D SIX	MSFC	S I ZEEMAN	NAG 8 1219	248
33	UNIV OF PUERTO RICO - MAYAGUEZ	R L MILLER	JSC	R A ARMSTRONG	NAG13 54	557
33	UNIV OF RHODE ISLAND	E LINDSTROM	GSFC	D CONRILLON	NAG 5 6077	458
33	UNIV OF RHODE ISLAND	E LINDSTROM	GSFC	P CORNILLON	NAG 5 3736	458
33	UNIV OF RHODE ISLAND	G ASRAR	GSFC	J YODER	NGT 5 30088	459
33	UNIV OF RHODE ISLAND	M MAIDEN	GSFC	P CORNILLON	NCC 5 307	459
33	UNIV OF RHODE ISLAND	R E MURPHY	HQ	P STEGMAN	NAGW 3601	459
33	UNIV OF SAN DIEGO	F SIX	MSFC	A STURZ	NAG 8 1120	122
33	UNIV OF SOUTH FLORIDA	A C JANETOS	HQ	M LUTHER	NGT 30270	185

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
33	UNIV OF SOUTH FLORIDA	A C JENETOS	HQ	P G COBLE	NAGW 3950	185
33	UNIV OF SOUTH FLORIDA	C R MCCLAIN	GSFC	F E MULLER-KARGER	NAS 5 97128	185
33	UNIV OF SOUTH FLORIDA	D E WICKLAND	HQ	F MULLER-KARGER	NAGW 3483	185
33	UNIV OF SOUTH FLORIDA	D L WILLIAMS	GSFC	K L CARDER	NAG 5 3446	184
33	UNIV OF SOUTH FLORIDA	G S HAYNE	GSFC	G T MITCHUM	NAG 5 5202	184
33	UNIV OF SOUTH FLORIDA	J YODER	GSFC	P COBLE	NAG 5 6301	184
33	UNIV OF SOUTH FLORIDA	K P LULLA	JSC	L L ROBBINS	NAG 9 959	185
33	UNIV OF SOUTH FLORIDA	R E MURPHY	HQ	M E LUTHER	NAGW 3618	185
33	UNIV OF SOUTHERN CALIFORNIA	J A YODER	GSFC	D A KIEFER	NAG 5 6360	124
33	UNIV OF SOUTHERN CALIFORNIA	K R ARRIGO	GSFC	D A KIEFER	NAG 5 3113	123
33	UNIV OF SOUTHERN MISSISSIPPI	J YODER	GSFC	S LOHRENTZ	NAG 5 4570	335
33	UNIV OF TEXAS - AUSTIN	B DOUGLAS	HQ	B TAPLEY	NAGW 2132	495
33	UNIV OF TEXAS - AUSTIN	C KOBLINSKY	GSFC	B D TAPLEY	NAG 5 4514	492
33	UNIV OF TEXAS - AUSTIN	C KOBLINSKY	GSFC	R J EANES	NAG 5 4511	492
33	UNIV OF TEXAS - AUSTIN	C KOBLINSKY	GSFC	R S NEREM	NAG 5 4513	492
33	UNIV OF WASHINGTON	A NOVOTNY	HQ	M J PERRY	NGT 51225	541
33	UNIV OF WASHINGTON	G ASRAR	GSFC	L THOMPSON	NGT 5 30030	541
33	UNIV OF WASHINGTON	J A CURRAN	GSFC	D HARTMANN	NAG 5 6101	536
33	UNIV OF WASHINGTON	R H THOMAS	GSFC	R W LINDSAY	NAG 5 4175	535
33	UNIV OF WASHINGTON	R H THOMAS	GSFC	S MARTIN	NAG 5 4176	535
33	UNIV OF WASHINGTON	R H THOMAS	HQ	D A ROTHROCK	NAGW 2407	539
33	UNIV OF WASHINGTON	R H THOMAS	HQ	D P WINEBRENNER	NAGW 1256	539
33	UNIV OF WASHINGTON	R H THOMAS	HQ	R E MORITZ	NAGW 4642	540
33	UNIV OF WASHINGTON	K R ARRIGO	GSFC	M P LIZOTTE	NAG 5 4108	555
33	UNIVERSITY OF WISCONSIN-OSHKOSH	G E KAYNE	GSFC	G E BROWN	NAG 5 5099	530
33	VA POLYTECH INST & ST UNIV	B MITCHELL	HQ	P G BREWER	NAGW 2431	311
33	WOODS HOLE OCEANOGRAPHIC INST	E J LINDSTROM	GSFC	D HUANG	NAG 5 4812	311
33	WOODS HOLE OCEANOGRAPHIC INST	G ASRAR	GSFC	D GOYET	NAG 5 4847	311
33	WOODS HOLE OCEANOGRAPHIC INST	J A YODER	GSFC	D M GLOVER	NAG 5 6456	311
33	WOODS HOLE OCEANOGRAPHIC INST	J COMISO	GSFC	J YANG	NAG 5 7348	311
33	WOODS HOLE OCEANOGRAPHIC INST	K R MCDONALD	GSFC	D M GLOVER	NAG 5 2884	311
33	WOODS HOLE OCEANOGRAPHIC INST	R MURPHY	HQ	D M GLOVER	NAGW 3648	311
33	YALE UNIV	S H GOGINENI	GSFC	R B SMITH	NAG 5 3972	153
39	ALABAMA A&M UNIV	B L WHITE	HQ	T L COLEMAN	NCCW 84	2
39	ALABAMA A&M UNIV	R HOOVER	MSFC	M G TADROS	NAG 8 1624	2
39	ALLEGHENY COLLEGE	A J TUYAHOV	GSFC	D BENSEL	NAG 5 3617	436
39	ALLEGHENY COLLEGE	J DASCH	HQ	T G BENSEL	NAG 5 6564	436
39	ARIZONA STATE UNIV	H BLODGET	GSFC	P CHRISTENSEN	NAS 5 31371	26
39	ARIZONA STATE UNIV	M WEI	GSFC	J R ARROWSMITH	NGT 5 30221	27
39	AUBURN UNIV	D DEERING	GSFC	K MCNABB	NCC 5 333	3
39	AUBURN UNIV	J R ARNOLD	MSFC	U HATCH	NCC 8 151	4
39	AUGUSTANA COLLEGE	N KHAZENIE	GSFC	V K OLNESS	NAG 5 6299	463
39	BOISE STATE UNIV	E ENGMAN	GSFC	P DAWSON	NAG 5 7537	207
39	BOSTON UNIV	A C JANETOS	GSFC	D K KAUFMANN	NAG 5 6214	282
39	BOSTON UNIV	B N HOLBEN	GSFC	D DYE	NAG 5 3458	281
39	BOSTON UNIV	C TUCKER	GSFC	R MYNENI	NAG 5 6065	282
39	BOSTON UNIV	C TUCKER	GSFC	R MYNENI	NAG 5 7472	283
39	BOSTON UNIV	D E WICKLAND	GSFC	M FRIEDL	NAG 5 7218	283
39	BOSTON UNIV	D L WILLIAMS	GSFC	C WOODCOCK	NAG 5 3439	281
39	BOSTON UNIV	D L WILLIAMS	GSFC	R B MYNENI	NAG 5 3457	281
39	BOSTON UNIV	D WICKLAND	GSFC	X LI	NAG 5 7217	283
39	BOSTON UNIV	E LINDSTROM	GSFC	D R KEY	NAG 5 4903	282
39	BOSTON UNIV	E T ENGMAN	GSFC	G D SALVUCCI	NAG 5 8666	284
39	BOSTON UNIV	E T ENGMAN	GSFC	M A FRIEDL	NAG 5 8584	284
39	BOSTON UNIV	G ASRAR	HQ	G SALVUCCI	NAGW 5255	284
39	BOSTON UNIV	J PRIVETTE	GSFC	R MYNENI	NAG 5 8659	284
39	BOSTON UNIV	M WEI	GSFC	G SALVUCCI	NAG 5 6716	282
39	BOSTON UNIV	M WEI	GSFC	R MYNENI	NGT 5 30223	284
39	BOSTON UNIV	M Y WEI	GSFC	C E WOODCOCK	NAG 5 6540	282
39	BOSTON UNIV	S GOGINENI	GSFC	D KEY	NAG 5 4850	282
39	BOWIE STATE UNIV	D L WILLIAMS	GSFC	W LAWRENCE	NAG 5 7669	248
39	BOWIE STATE UNIV	M IMHOFF	GSFC	W LAWRENCE	NAG 5 6476	248
39	BOWIE STATE UNIV	M IMHOFF	GSFC	W LAWRENCE	NCC 5 246	249
39	BRIGHAM YOUNG UNIV	E LINDSTROM	GSFC	D LONG	NAG 5 8746	500
39	BRIGHAM YOUNG UNIV	M Y WEI	GSFC	M A JENSEN	NAG 5 6782	500
39	BROWN UNIV	A JANETOS	GSFC	J MUSTART	NAG 5 6003	457

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	BROWN UNIV	M WEI	GSFC	J MUSTARD	NAG 5 6597	457
39	BUCKNELL UNIV	E T ENGMAN	GSFC	R D CRAGO	NAG 5 8679	437
39	BUCKNELL UNIV	E T ENGMAN	GSFC	R D CRAGO	NAG 5 8699	437
39	CALIFORNIA INST OF TECH	M Y WEI	GSFC	B C MURRAY	NGT 5 30138	50
39	CALIFORNIA INST OF TECH	M Y WEI	GSFC	M SIMONS	NGT 5 30135	50
39	CALIFORNIA POLYTECH STATE U-SAN LUIS	M WEI	GSFC	M A MOLINE	NAG 5 8674	51
39	CALIFORNIA STATE UNIV - LONG BEACH	N KHAZENIE	GSFC	E AMBOS	NCC 5 329	52
39	CALIFORNIA STATE UNIV - LOS ANGELES	D E WICKLAND	GSFC	J A GAMON	NAG 5 7401	53
39	CALIFORNIA STATE UNIV - LOS ANGELES	H M ADELMAN	LARC	H HASEMIAN	NAG 1 2029	52
39	CALIFORNIA STATE UNIV - LOS ANGELES	M Y WEI	GSFC	J A GAMON	NAG 5 6517	53
39	CALIFORNIA STATE UNIV - MONTEREY BAY	A JANETOS	GSFC	L PIERCE	NAG 5 6529	53
39	CALIFORNIA STATE UNIV - MONTEREY BAY	H CARR	SSC	L F JOHNSON	NAS13 98071	53
39	CALIFORNIA STATE UNIV - MONTEREY BAY	J C COUGHLAN	ARC	S E ALEXANDER	NCC 2 975	54
39	CALIFORNIA STATE UNIV - MONTEREY BAY	N KHAZENIE	GSFC	J F PARIS	NAG 5 6295	53
39	CALIFORNIA STATE UNIV - MONTEREY BAY	R MCKELLIP	JSC	L F JOHNSON	NAG13 99020	53
39	CTR FOR ENVIR & ESTU STUDIES U OF MD	A C JANETOS	GSFC	P R FISHER	NAG 5 6249	249
39	CTR FOR ENVIR & ESTU STUDIES U OF MD	J CAMPBELL	GSFC	D G CAPONE	NAG 5 6387	249
39	CTR FOR ENVIR & ESTU STUDIES U OF MD	J HARDING	GSFC	L HARDING	NAG 5 6286	249
39	CTR FOR ENVIR & ESTU STUDIES U OF MD	J W CAMPBELL	GSFC	L W HARDING	NAG 5 7602	249
39	CTR FOR ENVIR & ESTU STUDIES U OF MD	J W CAMPBELL	GSFC	T C MALONE	NAG 5 7455	249
39	CITY UNIV OF NY CITY COLLEGE	A A LACIS	GSFC	R KHANBILVARDI	NCC 5 206	371
39	CITY UNIV OF NY CITY COLLEGE	D TRAVIS	GSFC	L P JONES	NCC 5 74	371
39	CLARION UNIV OF PENNSYLVANIA	J FDOWDY	MSFC	A J VEGA	NAG 8 1312	439
39	CLARK UNIV	A JANETOS	GSFC	B TURNER	NAG 5 6046	285
39	CLARK UNIV	M WEI	GSFC	B L TURNER	NGT 5 97	285
39	CLARK UNIV	M WEI	GSFC	B L TURNER	NGT 5 30197	285
39	CLARK UNIV	M WEI	GSFC	B L TURNER	NGT 5 30217	285
39	CLARK UNIV	M WEI	GSFC	S HERWITZ	NGT 5 30032	285
39	CLARK UNIV	M Y WEI	GSFC	B L TUNNER	NGT 5 30153	285
39	CLARK UNIV	M Y WEI	GSFC	B L TURNER	NGT 5 30147	285
39	CLARK UNIV	M Y WEI	GSFC	J GEOGHEGAN	NAG 5 8559	285
39	COLLEGE OF SAN MATEO	M A PINE	HQ	K D KENNEDY	NAGW 4942	55
39	COLLEGE OF SAN MATEO	N KHAZENIE	GSFC	K D KENNEDY	NAG 5 4883	55
39	COLORADO COLLEGE	D SIX	MSFC	C E FOSHA	NAG 8 1226	126
39	COLORADO STATE UNIV	A C JANETOS	GSFC	D OJIMA	NAG 5 4646	127
39	COLORADO STATE UNIV	A C JANETOS	HQ	J K DETHING	NGT 30252	129
39	COLORADO STATE UNIV	A JANETOS	GSFC	D OJIMA	NAG 5 5188	127
39	COLORADO STATE UNIV	A JANETOS	GSFC	D OJIMA	NAG 5 6228	127
39	COLORADO STATE UNIV	D E WICKLAND	GSFC	N HANAN	NAG 5 8705	128
39	COLORADO STATE UNIV	D W DEERING	GSFC	A DENNING	NCC 5 284	129
39	COLORADO STATE UNIV	D WICKLAND	HQ	W PARTON	NAG 5 4983	127
39	COLORADO STATE UNIV	G ASRAR	GSFC	E KELLY	NGT 5 30024	129
39	COLORADO STATE UNIV	J C DODGE	GSFC	P L STEPHENS	NAG 5 6637	127
39	COLORADO STATE UNIV	M WEI	GSFC	S A RUTLEDGE	NGT 5 30218	129
39	COLORADO STATE UNIV	R H THOMAS	GSFC	D LISTON	NAG 5 4073	127
39	COLUMBIA UNIV	D E WICKLAND	GSFC	E MATTHEWS	NAG 5 6321	375
39	COLUMBIA UNIV	D KAHLE	GSFC	R MILLER	NAG 5 7688	376
39	COLUMBIA UNIV	D KAHLE	GSFC	R MILLER	NAG 5 8808	377
39	COLUMBIA UNIV	D R KAHLE	GSFC	R B MILLER	NAG 5 7690	376
39	COLUMBIA UNIV	D RIND	GSFC	M A CANE	NAG 5 7044	376
39	COLUMBIA UNIV	E LINDSTROM	GSFC	A L FIELD	NAG 5 6948	376
39	COLUMBIA UNIV	E LINDSTROM	GSFC	A L GORDON	NAG 5 8297	377
39	COLUMBIA UNIV	E LINDSTROM	GSFC	R SEAGER	NAG 5 6315	375
39	COLUMBIA UNIV	F L BLIVEN	GSFC	P SCHOSSER	NAG 5 5196	375
39	COLUMBIA UNIV	J CAMPBELL	GSFC	J MARRA	NAG 5 6877	375
39	COLUMBIA UNIV	M REPH	GSFC	R S CHEN	NAS 5 98162	377
39	COLUMBIA UNIV	M WEI	GSFC	D L WITTER	NAG 5 8675	377
39	COLUMBIA UNIV	M WEI	GSFC	J WEISSEL	NAG 5 6649	375
39	COLUMBIA UNIV	M Y WEI	GSFC	T TAKAHASHI	NGT 5 30167	378
39	COLUMBIA UNIV	R H THOMAS	GSFC	D M HOLLAND	NAG 5 4028	373
39	COLUMBIA UNIV	R KOSTER	GSFC	M STIEGLITZ	NCC 5 218	378
39	COLUMBIA UNIV	S GOGINENI	GSFC	D G MARTINSON	NAG 5 6331	375
39	COLUMBIA UNIV	S GOGINENI	GSFC	D G MARTINSON	NAG 5 6876	375
39	COLUMBIA UNIV	S GOGINENI	GSFC	D G MARTINSON	NAG 5 8581	377
39	COLUMBIA UNIV	S GOGINENI	GSFC	D MARTINSON	NAG 5 7922	377
39	COLUMBIA UNIV	S GOGINENI	GSFC	S S JACOBS	NAG 5 7461	376

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	CORNELL UNIV	D DEERING	GSFC	E FERNANDES	NCC 5 298	384
39	CORNELL UNIV	G ASRAR	GSFC	D L TURCOTTE	NAG 5 6281	382
39	CORNELL UNIV	J CAMPBELL	GSFC	B MONGER	NAG 5 8188	383
39	CORNELL UNIV	J JODER	GSFC	G CHARLES	NAG 5 6273	382
39	CORNELL UNIV	M BATLUCK	GSFC	B ISACKS	NAG 5 6111	382
39	CORNELL UNIV	M WEI	GSFC	L O HEDIN	NGT 5 30210	385
39	CORNELL UNIV	M Y WEI	GSFC	C H GREENE	NGT 5 50218	385
39	CORNELL UNIV	W LAU	GSFC	W BRUTSAET	NAS 5 31723	384
39	DARTMOUTH COLLEGE	R H THOMAS	GSFC	G BRAKENRIDGE	NAG 5 4178	347
39	DUKE UNIV	A C JANETOS	HQ	N L CHRISTENSEN JR	NGT 30253	398
39	DUKE UNIV	A NURRIDIN	HQ	D URBAN	NGT 5 50159	399
39	DUKE UNIV	A NURRIDIN	HQ	R T BARBER	NGT 5 50224	399
39	DUKE UNIV	D E WICKLAND	HQ	E KASISOHKE	NAGW 4483	398
39	DUKE UNIV	D WICKLAND	GSFC	E KASISCHKE	NAG 5 5148	397
39	DUKE UNIV	E T ENGMAN	GSFC	S ROJSTACZER	NAG 5 8533	398
39	DUKE UNIV	M S BURRELL	GSFC	B SCHESINGER	NGT 5 69	398
39	DUKE UNIV	M WEI	GSFC	P N HALPIN	NAG 5 6482	397
39	DUKE UNIV	R KNOX	GSFC	D L URBAN	NCC 5 233	398
39	EAST CAROLINA UNIV	D E WICKLAND	GSFC	Y WANG	NAG 5 4924	399
39	EAST CAROLINA UNIV	D E WICKLAND	HQ	Y WANG	NAGW 4505	399
39	ECKERD COLLEGE	F SIX	MSFC	J B THOMPSON	NAG 8 1103	167
39	FLA INTERNATIONAL UNIV	J W CAMPBELL	GSFC	L L RICHARDSON	NAG 5 8156	168
39	FLA INTERNATIONAL UNIV	M WEI	GSFC	D WITHMAN	NAG 5 6830	168
39	FLORIDA STATE UNIV	D E WICKLAND	GSFC	E A SMITH	NAG 5 7302	174
39	FLORIDA STATE UNIV	D W DEERING	GSFC	E A SMITH	NCC 5 292	175
39	FLORIDA STATE UNIV	D WICKLAND	GSFC	E SMITH	NAG 5 6258	174
39	FLORIDA STATE UNIV	E LINDSTROM	GSFC	J J O	NAG 5 8327	175
39	FLORIDA STATE UNIV	E LINDSTROM	GSFC	J O	NAG 5 6325	174
39	FLORIDA STATE UNIV	E LINDSTROM	GSFC	W DEWAR	NAG 5 7630	174
39	FLORIDA STATE UNIV	E T ENGMAN	GSFC	S E NICHOLSON	NAG 5 8598	175
39	FLORIDA STATE UNIV	F G HALL	GSFC	E A SMITH	NAG 5 2447	173
39	FLORIDA STATE UNIV	J C DODGE	GSFC	E A SMITH	NAG 5 6665	174
39	FLORIDA STATE UNIV	M WEI	GSFC	S E NICHOLSON	NGT 5 30186	176
39	FLORIDA STATE UNIV	M WEI	GSFC	T KRISHNAMURTI	NGT 5 30191	176
39	FLORIDA STATE UNIV	M Y WEI	GSFC	D NOF	NGT 5 30164	175
39	FLORIDA STATE UNIV	M Y WEI	GSFC	J J OBRIEN	NGT 5 30158	175
39	FORT HAYS STATE UNIV	E LINDSTROM	GSFC	J HEINRICHS	NAG 5 8633	236
39	GEORGE MASON UNIV	H RAMPRIYAN	GSFC	M KAFATOS	NAG 5 3086	509
39	GEORGE WASHINGTON UNIV	F G HALL	GSFC	R LANG	NCC 5 53	160
39	GEORGE WASHINGTON UNIV	J GASCH	GSFC	D WILLIAMSON	NAG 5 3957	158
39	GEORGE WASHINGTON UNIV	P E O'NEILL	GSFC	R LANG	NAG 5 4800	158
39	GEORGIA INST OF TECH	A J TUYAHOV	GSFC	W L CHAMEIDES	NAG 5 3855	190
39	HARTWICK COLLEGE	J F DOWDY	MSFC	P T BUCKLEY	NAG 8 1263	386
39	HARVARD UNIV	D E WICKLAND	GSFC	S C WORSY	NAG 5 7534	289
39	HARVARD UNIV	D W DEERING	GSFC	S C WOF SY	NCC 5 341	290
39	HARVARD UNIV	D WICKLAND	GSFC	D WORSY	NAG 5 4722	288
39	HARVARD UNIV	D WICKLAND	HQ	D WOF SY	NAG 5 6136	288
39	HARVARD UNIV	G ASRAR	GSFC	F BAZZAZ	NGT 5 30002	290
39	HARVARD UNIV	J A KAYE	GSFC	S C WOF SY	NAG 5 3979	287
39	HARVARD UNIV	M WEI	GSFC	S C WOF SY	NGT 5 30205	290
39	HARVARD UNIV	M Y WEI	GSFC	R FORMAN	NGT 5 30144	290
39	HARVARD UNIV	M Y WEI	GSFC	S C WOF SY	NGT 5 30152	290
39	HARVARD UNIV	R CURRAN	GSFC	J ANDERSON	NAG 5 8779	289
39	HOFSTRA UNIV	E J LINDSTROM	GSFC	D E WEISSMAN	NAG 5 7503	386
39	ILLINOIS STATE UNIV	J F DOWNDY	MSFC	D HOLLAND	NAG 8 1262	208
39	INDIANA UNIV - BLOOMINGTON	D DEERING	GSFC	E MORAN	NCC 5 334	225
39	INDIANA UNIV - BLOOMINGTON	M WEI	GSFC	J RANDOLPH	NAG 5 6702	224
39	IOWA STATE UNIV	E K GIBSON	JSC	P A BAZLINSKI	NAG 9 1115	232
39	JACKSON STATE UNIV	J F DOWDY	MSFC	R S REDDY	NAG 8 1316	332
39	JAMES MADISON UNIV	N KHAZENIE	GSFC	J BARNES	NAG 5 6166	513
39	JOHNS HOPKINS UNIV	J CAMPBELL	HQ	E GROSS	NAG 5 7633	254
39	JOHNS HOPKINS UNIV	J H BREDEKAMP	GSFC	A SZALAY	NAG 5 8590	256
39	JOHNS HOPKINS UNIV	M NOLAN	GSFC	B L GOTWOLS	NAG 5 8007	255
39	KANSAS STATE UNIV	A JANETOS	GSFC	D JOHNSON	NAG 5 6213	237
39	LAC COURTE OREILLES OJIBWA COMM COLL	A F HEPP	GRC	D H ANDERSON	NAG 3 2293	545
39	MASSACHUSETTS INST OF TECH	D E WICKLAND	GSFC	D ENTEKHABI	NAG 5 4905	297

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	MASSACHUSETTS INST OF TECH	D WICKLAND	GSFC	D ENTEKHABI	NAG 5 6441	299
39	MASSACHUSETTS INST OF TECH	E J LINSTROM	GSFC	B HAGER	NAG 5 6352	298
39	MASSACHUSETTS INST OF TECH	E LINDSTROM	GSFC	C WUNSCH	NAG 5 7857	301
39	MASSACHUSETTS INST OF TECH	E LINDSTROM	GSFC	D STAMMER	NAG 5 7162	299
39	MASSACHUSETTS INST OF TECH	E LINDSTROM	GSFC	P RIZZOLI	NAG 5 7194	299
39	MASSACHUSETTS INST OF TECH	E LINDSTROM	GSFC	P WUNSCH	NAG 5 6224	298
39	MASSACHUSETTS INST OF TECH	E T ENGMAN	GSFC	D MCLAUGHLIN	NCC 5 416	305
39	MASSACHUSETTS INST OF TECH	E T ENGMAN	GSFC	E B ELTAHIR	NAG 5 8617	302
39	MASSACHUSETTS INST OF TECH	G SOFFEN	GSFC	T HERRING	NAS 5 33017	304
39	MASSACHUSETTS INST OF TECH	J CAMPBELL	GSFC	J MARSHALL	NCC 5 244	305
39	MASSACHUSETTS INST OF TECH	J CAMPBELL	GSFC	S BENTON	NAG 5 6600	299
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	C BURCHFIEL	NAG 5 6594	299
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	D ENTEKHABI	NAG 5 6394	298
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	D ENTEKHABI	NAG 5 6592	299
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	D ENTEKHABI	NGT 5 30190	306
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	D MCLAUGHLIN	NAG 5 6390	298
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	E ELTAHIR	NAG 5 7525	301
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	J MARSHALL	NGT 5 30189	306
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	K X WHIPPLE	NGT 5 30188	306
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	R A PLUMB	NGT 5 30200	306
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	R L BRAS	NGT 5 30212	306
39	MASSACHUSETTS INST OF TECH	M Y WEI	GSFC	D ENTEKHABI	NGT 5 30145	306
39	MASSACHUSETTS INST OF TECH	W LAU	GSFC	P EAGLESON	NAS 5 31721	304
39	MEDGAR EVERS COLLEGE	A A LACIS	GSFC	L P JOHNSON	NCC 5 205	386
39	MICHIGAN STATE UNIV	A C JANETOS	GSFC	J LIU	NAG 5 6522	313
39	MICHIGAN STATE UNIV	A C JANETOS	GSFC	J LIU	NAG 5 8317	313
39	MICHIGAN STATE UNIV	A JANETOS	GSFC	D BROWN	NAG 5 6042	313
39	MICHIGAN STATE UNIV	A JANETOS	GSFC	D SKOLE	NAG 5 6538	313
39	MICHIGAN STATE UNIV	A JANETOS	GSFC	D SKOLE	NAG 5 6638	313
39	MICHIGAN STATE UNIV	A JOYCE	SSC	P SORRANO	NGT13 52715	314
39	MICHIGAN STATE UNIV	D DEERING	GSFC	D SKOLE	NCC 5 291	313
39	MICHIGAN STATE UNIV	D WILLIAMS	GSFC	D SKOLE	NAG 5 4810	313
39	MICHIGAN STATE UNIV	M Y WEI	GSFC	D L SKOLE	NAG 5 6480	313
39	MICHIGAN STATE UNIV	M Y WEI	GSFC	J LIU	NGT 5 30166	314
39	MICHIGAN STATE UNIV	S GOGINENI	GSFC	D L SKOLE	NAG 5 6949	313
39	MICHIGAN TECHNOLOGICAL UNIV	G ASRAR	GSFC	P DEBANKER	NGT 5 30028	315
39	MICHIGAN TECHNOLOGICAL UNIV	M Y WEI	GSFC	G BLUTH	NGT 5 30154	315
39	MICHIGAN TECHNOLOGICAL UNIV	M Y WEI	GSFC	G J BLUTH	NAG 5 6650	314
39	MICHIGAN TECHNOLOGICAL UNIV	S GOGINENI	GSFC	D PILANT	NAG 5 7051	314
39	MISSISSIPPI STATE UNIV	M WEI	GSFC	D L EVANS	NAG 5 6519	333
39	MISSISSIPPI STATE UNIV	R MCKELLIP	SSC	S ROBERTS	NAG13 99018	334
39	MONTANA STATE UNIV	A C JANETOS	GSFC	A HASEN	NAG 5 6005	342
39	MT HOLYOKE COLLEGE	M Y WEI	GSFC	J L BUBIER	NAG 5 8635	307
39	MURRAY STATE COLLEGE - OKLA	M WEI	GSFC	H CETIN	NAG 5 6582	430
39	NEW MEXICO HIGHLANDS UNIV	L M ARMEDARIZ	JSC	J C	NAG 9 1139	363
39	NEW MEXICO INST OF MINING & TECH	F K GIBSON	JSC	T L KIEFT	NAG 9 1106	364
39	NEW MEXICO STATE UNIV - LAS CRUCES	C E WADE	ARC	E E SERRANO	NAG 2 1334	364
39	NEW MEXICO STATE UNIV - LAS CRUCES	R S NOCK	GSFC	J E HALLIGAN	NAS 5 31125	366
39	NY UNIV	S GOGINENI	GSFC	D M HOLLAND	NAG 5 8475	387
39	NORFOLK STATE UNIV	N KHAZENIE	GSFC	S CHAUDHARY	NAG 5 4962	515
39	NORFOLK STATE UNIV	N KHAZENIE	GSFC	W J RODRIGUEZ	NAG 5 6298	515
39	NORFOLK STATE UNIV	R HATHAWAY	LARC	S R CHAUDURY	NCC 1 200	515
39	NORTH CAROLINA STATE UNIV	J CAMPBELL	GSFC	J MORRISON	NAG 5 6520	404
39	NORTH CAROLINA STATE UNIV	M WEI	GSFC	J M MORRISON	NGT 5 30192	405
39	OHIO STATE UNIV	E J LINDSTROM	GSFC	C K SHUM	NAG 5 7284	419
39	OHIO STATE UNIV	E LIDSTROM	GSFC	K N BERLINER	NAG 5 8455	420
39	OHIO STATE UNIV	E LINDSTROM	GSFC	C DER VEEN	NAG 5 8632	420
39	OHIO STATE UNIV	G ASRAR	GSFC	L G THOMPSON	NGT 5 30012	421
39	OHIO STATE UNIV	J DODGE	GSFC	K JEZEK	NAG 5 6527	419
39	OHIO STATE UNIV	M E MAIDEN	HQ	K C JEZEK	NAGW 4744	420
39	OHIO STATE UNIV	M WEI	GSFC	L BROWN	NGT 5 30042	421
39	OHIO STATE UNIV	M Y WEI	GSFC	D C JEZEK	NAG 5 6618	419
39	OHIO STATE UNIV	R H THOMAS	GSFC	D L THOMPSON	NAG 5 4075	418
39	OHIO STATE UNIV	R H THOMAS	GSFC	K JEZEK	NAG 5 3477	418
39	OHIO STATE UNIV	R H THOMAS	HQ	D H BROMWICH	NAGW 3677	420
39	OHIO STATE UNIV	S GOGINENI	GSFC	D JEZEK	NAG 5 4849	418

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	OHIO STATE UNIV	S GOGINENI	GSFC	E S MOSLEY-THOMPSON	NAG 5 6817	419
39	OHIO STATE UNIV	S GOGINENI	GSFC	K C JEZEK	NAG 5 6818	419
39	OHIO STATE UNIV	S GOGINENI	HQ	D BROMWICH	NAG 5 6001	419
39	OKLAHOMA STATE UNIV	D E WICKLAND	GSFC	S J STADLER	NAG 5 7451	430
39	OLD DOMINION UNIV	M WEI	GSFC	T ALLEN	NAG 5 6491	518
39	OLD DOMINION UNIV	N KHAZENIE	GSFC	E SMITH	NAG 5 4515	517
39	OLD DOMINION UNIV	S J KATZBERG	LARC	G F OERTEL	NAG 1 2082	516
39	OREGON STATE UNIV	A C JANETOS	GSFC	D E HARMON	NAG 5 6242	433
39	OREGON STATE UNIV	D E WICKLAND	GSFC	B LAW	NAG 5 7551	433
39	OREGON STATE UNIV	D E WICKLAND	GSFC	D COHEN	NAG 5 4816	432
39	OREGON STATE UNIV	D E WICKLAND	GSFC	D H UNSWORTH	NAG 5 4433	432
39	OREGON STATE UNIV	D E WICKLAND	GSFC	L MAHRT	NAG 5 7416	433
39	OREGON STATE UNIV	D E WICKLAND	GSFC	M H UNSWORTH	NAG 5 7531	433
39	OREGON STATE UNIV	D E WICKLAND	GSFC	R H WARING	NAG 5 7506	433
39	OREGON STATE UNIV	D E WICKLAND	GSFC	W B COHEN	NAG 5 7856	434
39	OREGON STATE UNIV	D WICKLAND	HQ	B LAW	NAG 5 8315	434
39	OREGON STATE UNIV	E LINDSTROM	GSFC	A F BENNETT	NAG 5 8160	434
39	OREGON STATE UNIV	E LINDSTROM	GSFC	D B CHELTON	NAG 5 6354	433
39	OREGON STATE UNIV	F G HALL	GSFC	D MARKS	NAG 5 2301	432
39	OREGON STATE UNIV	F G HALL	GSFC	L MAHRT	NAG 5 2300	432
39	OREGON STATE UNIV	F G HALL	GSFC	R H CUENCA	NAG 5 2377	432
39	OREGON STATE UNIV	J C DODGE	GSFC	D FREILICH	NAG 5 6642	433
39	OREGON STATE UNIV	J CAMPBELL	GSFC	J R ZANEVELD	NAG 5 6647	433
39	OREGON STATE UNIV	J CAMPBELL	GSFC	K SHIFRIN	NAG 5 6530	433
39	OREGON STATE UNIV	M WEI	GSFC	B MATE	NGT 5 30185	435
39	OREGON STATE UNIV	M WEI	GSFC	D PISIAS	NAG 5 6477	433
39	OREGON STATE UNIV	M WEI	GSFC	R P DICK	NGT 5 96	435
39	OREGON STATE UNIV	M WEI	GSFC	W B COHEN	NGT 5 30214	435
39	OREGON STATE UNIV	S GOGINENI	GSFC	G LEVY	NAG 5 8520	434
39	OREGON STATE UNIV	S GOGINENI	GSFC	L MAHRT	NAG 5 8601	434
39	PENN STATE UNIV	A J TUYAHOV	GSFC	G W PETERSEN	NAG 5 3856	444
39	PENN STATE UNIV	D E WICKLAND	GSFC	R NAJJAR	NAG 5 3976	444
39	PENN STATE UNIV	D WILLIAMS	GSFC	W MEYERS	NAG 5 6713	446
39	PENN STATE UNIV	E T ENGMAN	GSFC	D MILLER	NAG 5 8738	447
39	PENN STATE UNIV	E T ENGMAN	GSFC	D R STAUFFER	NAG 5 8735	447
39	PENN STATE UNIV	G ASRAR	GSFC	R NAJJAR	NAG 5 6451	446
39	PENN STATE UNIV	J S THEON	HQ	D LAMB	NGT 30280	449
39	PENN STATE UNIV	J YODER	GSFC	R NAJJAR	NAG 5 6389	445
39	PENN STATE UNIV	M MAIDEN	GSFC	A K GLASMEIER	NAG 5 7647	447
39	PENN STATE UNIV	M WEI	GSFC	E BARRON	NAG 5 4553	444
39	PENN STATE UNIV	M WEI	GSFC	J VERLINDE	NGT 5 30208	450
39	PENN STATE UNIV	M WEI	GSFC	S BRANTLEY	NGT 5 30193	450
39	PENN STATE UNIV	M WEI	GSFC	T CARLSON	NAG 5 6194	445
39	PENN STATE UNIV	M WEI	HQ	BRUNES	NGT 5 30139	450
39	PENN STATE UNIV	M Y WEI	GSFC	A P BARROS	NAG 5 6656	446
39	PENN STATE UNIV	M Y WEI	GSFC	C DUFFY	NAG 5 6357	445
39	PENN STATE UNIV	M Y WEI	GSFC	R B ALLEY	NGT 5 30171	450
39	PENN STATE UNIV	S GOGINENI	GSFC	R ALLEY	NAG 5 7776	447
39	PORTLAND STATE UNIV	J F DOWDY	MSFC	A M FRASER	NAG 8 1283	435
39	PRAIRIE VIEW A&M UNIV	M WEI	GSFC	S H SHAKIR	NAG 5 6823	473
39	PRESCOTT COLLEGE	G A SHELTON	ARC	W W ORR	NAG 2 1207	28
39	PRINCETON UNIV	D E WICKLAND	GSFC	E F WOOD	NAG 5 7297	357
39	PRINCETON UNIV	E ENGMAN	GSFC	E WOOD	NGT 5 56	359
39	PRINCETON UNIV	G ASRAR	GSFC	D MANABE	NGT 5 30009	359
39	PRINCETON UNIV	G ASRAR	GSFC	J L SARMIENTO	NAG 5 6591	357
39	PRINCETON UNIV	J DODGE	GSFC	E WOOD	NAG 5 6494	357
39	PRINCETON UNIV	M WEI	GSFC	E LARSON	NAG 5 6671	357
39	PRINCETON UNIV	M WEI	GSFC	L RUSSELL	NAG 5 8676	358
39	PRINCETON UNIV	M Y WEI	GSFC	G PHILANDER	NGT 5 30134	359
39	PRINCETON UNIV	M Y WEI	GSFC	H LEVY	NGT 5 30137	359
39	PRINCETON UNIV	M Y WEI	GSFC	I M HELD	NGT 5 30156	359
39	PRINCETON UNIV	M Y WEI	GSFC	I RODRIQUEZ	NAG 5 8151	358
39	PRINCETON UNIV	W LAU	GSFC	E WOOD	NAS 5 31719	358
39	PURDUE UNIV	A TUYAHOV	GSFC	B A ENGEL	NAG 5 7954	228
39	PURDUE UNIV	D E WICKLAND	GSFC	C E BRODLEY	NAG 5 6971	227
39	PURDUE UNIV	D E WICKLAND	GSFC	D A LANGREBE	NAG 5 3975	227

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	PURDUE UNIV	J JENNER	SSC	C J JOHANNSEN	NAG13 38	228
39	PURDUE UNIV	M WEI	GSFC	C J JOHANNSEN	NAG 5 6704	227
39	PURDUE UNIV	M Y WEI	GSFC	P B SHEPSON	NGT 5 30163	229
39	RICE UNIV	D E WICKLAND	GSFC	R L SASS	NAG 5 4909	475
39	RICE UNIV	D E WICKLAND	HQ	R L SASS	NAGW 4635	476
39	RICE UNIV	D E WICKLAND	HQ	R L SASS	NAGW 4685	476
39	RICE UNIV	M IMHOFF	GSFC	P HARCOMBE	NAG 5 4958	475
39	ROCHESTER INST OF TECH	D L WILLIAMS	GSFC	J SCHOTT	NAG 5 3443	389
39	RUTGERS STATE UNIV - PISCATAWAY	A JANETOS	GSFC	M ROBSON	NAG 5 7539	361
39	RUTGERS STATE UNIV - PISCATAWAY	J CAMPBELL	GSFC	M BEHRENFELD	NAG 5 7437	361
39	RUTGERS STATE UNIV OF NJ COOK CAMPUS	E T ENGMAN	GSFC	R AVISSAR	NAG 5 8213	362
39	RUTGERS STATE UNIV OF NJ COOK CAMPUS	J W CAMPBELL	GSFC	P G FALKOWSKI	NAG 5 6982	362
39	RUTGERS STATE UNIV OF NJ COOK CAMPUS	S GOGINENI	GSFC	D J FRANCIS	NAG 5 4908	362
39	RUTGERS STATE UNIV OF NJ NEW BRUNS	M E MAIDEN	HQ	J FRANCIS	NAGW 4760	362
39	SAN DIEGO STATE UNIV	A C JANETOS	HQ	W C OECHEL	NGT 30319	56
39	SAN DIEGO STATE UNIV	D E WICKLAND	HQ	W OECHEL	NGT 30311	56
39	SAN DIEGO STATE UNIV	M Y WEI	GSFC	R MELLORS	NAG 5 8560	56
39	SAN DIEGO STATE UNIV	R MCKELLIP	JSC	D STOW	NAG13 99017	56
39	SAN FRANCISCO STATE UNIV	J CAMPBELL	HQ	R KUDELA	NAG 5 7632	56
39	SAN FRANCISCO STATE UNIV	J W CAMPBELL	GSFC	D H ROBINSON	NAG 5 7511	56
39	SAN FRANCISCO STATE UNIV	J W CAMPBELL	GSFC	D H ROBINSON	NAG 5 8013	56
39	SAN JOSE STATE UNIV	T MILLER	MSFC	R BORSTEIN	NAS 8 97106	58
39	SAN JOSE STATE UNIV	V VANDERBILT	ARC	P A HAMILL	NCC 2 1132	59
39	SOUTH DAKOTA SCH OF MINES & TECH	J ARNOLD	MSFC	S O FAREWELL	NAG 8 1447	464
39	SOUTH DAKOTA SCH OF MINES & TECH	M WEI	GSFC	M PRICE	NAG 5 6872	464
39	SOUTH DAKOTA SCH OF MINES & TECH	R MCKELLIP	JSC	M PRICE	NAG13 99021	464
39	SOUTH DAKOTA SCH OF MINES & TECH	T GULL	GSFC	P CAMPONE	NAG 5 2950	464
39	SOUTH DAKOTA STATE UNIV	D L WILLIAMS	GSFC	D HELDER	NAG 5 3540	464
39	ST UN NY COL-ENV SCI & FORESTRY	H CARR	SSC	P HOPKINS	NCC13 98001	390
39	ST	J F DOWDY	MSFC	D POISTER	NAG 8 1318	546
39	STANFORD UNIV	A C JANETOS	GSFC	H A MOONEY	NAG 5 7367	65
39	STANFORD UNIV	D E WICKLAND	HQ	H A MOONEY	NAGW 4212	66
39	STANFORD UNIV	D WICKLAND	GSFC	H MOONEY	NAG 5 6107	64
39	STANFORD UNIV	G ASRAR	GSFC	H MOONEY	NGT 5 30018	70
39	STANFORD UNIV	M L IMHOFF	GSFC	M L IMHOFF	NAG 5 8563	65
39	STANFORD UNIV	M L IMHOFF	GSFC	P EHRLICH	NAG 5 2393	63
39	STANFORD UNIV	M WEI	GSFC	M Z JACOBSON	NAG 5 8645	66
39	STANFORD UNIV	M WEI	GSFC	P M VITOUSEK	NGT 5 30216	70
39	STANFORD UNIV	M WEI	GSFC	P MATSON	NGT 5 30204	70
39	STANFORD UNIV	M WEI	GSFC	P SEGALL	NAG 5 6537	65
39	STANFORD UNIV	R H THOMAS	GSFC	D ZEBKER	NAG 5 3732	63
39	STANFORD UNIV	R H THOMAS	HQ	H ZEBKER	NAGW 4943	66
39	STATE UNIV OF NY - ALBANY	D W DEERING	GSFC	D R FRITZJARRALD	NCC 5 283	390
39	STATE UNIV OF NY - ALBANY	F G HALL	GSFC	D B FITZIARRALD	NAG 5 2242	390
39	STATE UNIV OF NY - BINGHAMTON	D E WICKLAND	GSFC	M GOEL	NAG 5 3866	390
39	STATE UNIV OF NY - STONY BROOK	B CARLSON	GSFC	GELLER	NCC 5 126	394
39	STATE UNIV OF NY - STONY BROOK	D WICKLAND	GSFC	M LERDAU	NAG 5 6601	393
39	STATE UNIV OF NY - STONY BROOK	G ASRAR	HQ	M T LERDAU	NAGW 5249	394
39	STATE UNIV OF NY - STONY BROOK	W LAU	GSFC	M GELLER	NAS 5 31720	394
39	TEXAS A&M UNIV	J CAMPBELL	GSFC	W D NOWLIN	NAG 5 6446	479
39	TEXAS A&M UNIV	M WEI	GSFC	I RODRIGUEZ	NAG 5 6444	479
39	TEXAS A&M UNIV	M WEI	GSFC	T BOUTTON	NGT 5 30211	482
39	TEXAS A&M UNIV	M Y WEI	GSFC	D P BOWMAN	NAG 5 6481	479
39	TEXAS A&M UNIV	M Y WEI	GSFC	I RODRIGUEZ	NAG 5 6566	479
39	TEXAS A&M UNIV	M Y WEI	GSFC	J B VALDES	NAG 5 3966	479
39	TEXAS A&M UNIV	M Y WEI	GSFC	R ZHANG	NAG 5 8706	480
39	TEXAS A&M UNIV	M Y WEI	HQ	I RODRIGUEZ-ITURBE	NAGW 4766	481
39	TEXAS A&M UNIV	M Y WEI	HQ	J B VALDES	NAGW 4189	481
39	TEXAS A&M UNIV	S GOGINENI	GSFC	A STOESEL	NAG 5 7751	480
39	TEXAS SOUTHERN UNIV	J D ATKINSON	JSC	J JONES	NAG 9 879	483
39	TEXAS SOUTHERN UNIV	L ARMENDARIZ	JSC	J JONES	NAG 9 974	483
39	TEXAS SOUTHERN UNIV	M Y WEI	GSFC	J JONES	NAG 5 7209	483
39	THE SCRIPPS REASERCH INST	F E HOGE	GSFC	M VERNET	NAG 5 5191	71
39	THE UNIV OF CENTRAL FLORIDA	D R DELA PASCUA	KSC	C COOPER	NAG10 240	177
39	THE UNIV OF CENTRAL FLORIDA	D WICKLAND	GSFC	J WEISHAMPEL	NAG 5 6528	176
39	THE UNIV OF CENTRAL FLORIDA	G ASRAR	HQ	J F WEISHAMPEL	NAGW 5202	176

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	TROY STATE UNIV	D SIX	MSFC	D J BATEMAN	NAG 8 1204	5
39	UNIV HOUSTON-HOUSTON	E K GIBSON	JSC	H S CHAFETZ	NAG 9 1103	485
39	UNIV OF MINN	D E WICKLAND	GSFC	P B REICH	NAG 5 7917	328
39	UNIV OF MINN	E T ENGMAN	GSFC	K J DAVIS	NAG 5 8736	329
39	UNIV OF MINN	F HASLER	GSFC	T E BURK	NAG 5 2698	327
39	UNIV OF MINN	M WEI	GSFC	M BAUER	NAG 5 6609	328
39	UNIV OF MINN	M Y WEI	GSFC	E FOUFOULA-GEORGI	NAG 5 6191	328
39	UNIV OF MINN	M Y WEI	GSFC	S HOBBIIE	NGT 5 30111	331
39	UNIV OF MINN	R MCKELLIP	SSC	M BAUER	NAG13 99022	329
39	UNIV OF MINN	T M SANDERS	GRC	D H PUI	NAG 3 2187	326
39	UNIV OF TEXAS-PAN AMERICAN	M WEI	GSFC	F JUDD	NAG 5 6871	487
39	UNIV	J S THEON	HQ	R WHARTON	NGT 30286	346
39	UNIV	S GOGINENI	GSFC	G L DANA	NAG 5 7870	345
39	UNIV OF ALABAMA - BIRMINGHAM	E PAYLOR	GSFC	L DELUCAS	NAG 5 8786	7
39	UNIV OF ALABAMA - HUNTSVILLE	A NURRIDIN	HQ	R M WELCH	NGT 5 30168	17
39	UNIV OF ALABAMA - HUNTSVILLE	L R GREENWOOD	MSFC	D J PERKEY	NCC 8 22	16
39	UNIV OF ALABAMA - HUNTSVILLE	M JASINSKI	GSFC	R MCNIDER	NAG 5 7542	11
39	UNIV OF ALABAMA - HUNTSVILLE	R GREENWOOD	MSFC	R MCNIDER	NCC 8 141	17
39	UNIV OF ALABAMA - HUNTSVILLE	S GOGINENI	GSFC	R T MCNIDER	NAG 5 7844	12
39	UNIV OF ALABAMA - HUNTSVILLE	T BRAKE	GSFC	R WELCH	NAS 5 31718	16
39	UNIV OF ALASKA - ANCHORAGE	G ASRAR	GSFC	K PETERSON	NGT 5 30039	20
39	UNIV OF ALASKA - ANCHORAGE	J F DOWDY	MSFC	J A OLOFSSON	NAG 8 1282	20
39	UNIV OF ALASKA - FAIRBANKS		GSFC	M O JEFFRIES	NAG 5 8549	22
39	UNIV OF ALASKA - FAIRBANKS	A JANETOS	GSFC	D MCGUIRE	NAG 5 6275	21
39	UNIV OF ALASKA - FAIRBANKS	D E WICKLAND	GSFC	D CHAPIN	NAG 5 6590	21
39	UNIV OF ALASKA - FAIRBANKS	D HALL	GSFC	C BENSON	NCC 5 213	23
39	UNIV OF ALASKA - FAIRBANKS	D K HALL	GSFC	D L VERBYLA	NAG 5 4517	21
39	UNIV OF ALASKA - FAIRBANKS	D WICKLAND	GSFC	C L WILLIAMS	NAG 5 7507	22
39	UNIV OF ALASKA - FAIRBANKS	E LINDSTROM	GSFC	S R OKKONEN	NAG 5 7603	22
39	UNIV OF ALASKA - FAIRBANKS	E T ENGMAN	GSFC	S LI	NAG 5 8614	22
39	UNIV OF ALASKA - FAIRBANKS	G HUNOLT	GSFC	G WELLER	NAS 5 32393	23
39	UNIV OF ALASKA - FAIRBANKS	P J ONDRUS	GSFC	N AVAILBLE	NAS 5 98129	23
39	UNIV OF ALASKA - FAIRBANKS	R H THOMAS	GSFC	D JEFFRIES	NAG 5 4170	21
39	UNIV OF ALASKA - FAIRBANKS	S GOGINENI	GSFC	M O JEFFRIES	NAG 5 7299	22
39	UNIV OF ALASKA - FAIRBANKS	S H GOGINENI	GSFC	C LINGLE	NAG 5 4068	20
39	UNIV OF ALASKA - FAIRBANKS	S K HALL	GSFC	C S BENSON	NCC 5 379	23
39	UNIV OF ALASKA - FAIRBANKS	S P GOGINENI	GSFC	D FREYMUELLER	NAG 5 4369	21
39	UNIV OF ARIZONA	A C JANETOS	GSFC	L J GRAUMLICH	NAG 5 4687	33
39	UNIV OF ARIZONA	A TUYAHOV	GSFC	D YOUNG	NAG 5 8157	37
39	UNIV OF ARIZONA	C LEE	GSFC	C F HUTCHINSON	NAG 5 8341	38
39	UNIV OF ARIZONA	D E WICKLAND	GSFC	R E DICKINSON	NAG 5 7249	36
39	UNIV OF ARIZONA	D E WICKLAND	GSFC	W SHUTTLEWORTH	NAG 5 3854	31
39	UNIV OF ARIZONA	D K WEST	GSFC	J SHUTTLEWORTH	NAG 5 3492	30
39	UNIV OF ARIZONA	D L WILLIAMS	GSFC	C J THOME	NAG 5 3436	30
39	UNIV OF ARIZONA	E T ENGMAN	GSFC	J W SHUTTLEWORTH	NAG 5 8214	37
39	UNIV OF ARIZONA	E WOOD	GSFC	S SOROOSHIAN	NAG 5 8503	38
39	UNIV OF ARIZONA	E Y WOOD	GSFC	S SOROOSHAIN	NAG 5 3640	31
39	UNIV OF ARIZONA	J PRIVETTE	GSFC	A HAUTE	NAG 5 8660	38
39	UNIV OF ARIZONA	K H BERGMAN	GSFC	R FU	NAG 5 6967	35
39	UNIV OF ARIZONA	M WEI	GSFC	R E DICKSON	NGT 5 30013	41
39	UNIV OF ARIZONA	M Y WEI	GSFC	C E GLASS	NGT 5 30148	41
39	UNIV OF ARIZONA	M Y WEI	GSFC	C HUTCHINSON	NGT 5 30140	41
39	UNIV OF ARIZONA	M Y WEI	GSFC	R A SCHOWENGERDT	NAG 5 6542	34
39	UNIV OF ARIZONA	M Y WEI	GSFC	R DICKINSON	NAG 5 4480	33
39	UNIV OF ARIZONA	R H THOMAS	GSFC	V R BAKER	NAG 5 4124	32
39	UNIV OF ARIZONA	R SCHIEFFER	GSFC	S ROROOSHIAN	NAG 5 8502	38
39	UNIV OF ARIZONA	S GOGINENI	GSFC	R BALES	NAG 5 6779	35
39	UNIV OF ARIZONA	W B KRABILL	GSFC	R C BALES	NAG 5 5031	34
39	UNIV OF ARKANSAS - LITTLE ROCK	P MOGAN	KSC	A J ADAMS	NGT10 52618	42
39	UNIV OF CALIFORNIA - BERKELEY	A C JANETOS	HQ	C D	NGT 30247	82
39	UNIV OF CALIFORNIA - BERKELEY	A C JANETOS	HQ	F S CHAPIN III	NGT 30259	82
39	UNIV OF CALIFORNIA - BERKELEY	A C JANETOS	HQ	J HARTE	NGT 30289	82
39	UNIV OF CALIFORNIA - BERKELEY	A J TUYAHOV	GSFC	J M HELLERSTEIN	NAG 5 7174	77
39	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	O E GRANGER	NGT 5 50223	84
39	UNIV OF CALIFORNIA - BERKELEY	D E WICKLAND	GSFC	D BALDOCCHI	NAG 5 8510	79
39	UNIV OF CALIFORNIA - BERKELEY	D E WICKLAND	GSFC	W SILVER	NCC 5 352	82

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	UNIV OF CALIFORNIA - BERKELEY	E T ENGMAN	GSFC	X LIANG	NAG 5 8737	79
39	UNIV OF CALIFORNIA - BERKELEY	G ASRAR	GSFC	D G AMUNDSON	NGT 5 30044	82
39	UNIV OF CALIFORNIA - BERKELEY	G ASRAR	GSFC	M POWER	NGT 5 30006	82
39	UNIV OF CALIFORNIA - BERKELEY	M BALTUCK	HQ	W E DIETRICH	NGT 30318	82
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	D BRIMHALL	NAG 5 6515	75
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	R C COHEN	NGT 5 30219	83
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	T L BENNING	NGT 5 30183	83
39	UNIV OF CALIFORNIA - BERKELEY	M Y WEI	GSFC	F S CHAPIN	NGT 5 50216	84
39	UNIV OF CALIFORNIA - BERKELEY	M Y WEI	GSFC	W L SILVER	NGT 5 30141	83
39	UNIV OF CALIFORNIA - BERKELEY	P DECOLA	GSFC	A GOLDSTEIN	NAG 5 7173	77
39	UNIV OF CALIFORNIA - DAVIS	A C JANETOS	HQ	S L USTIN	NGT 30341	88
39	UNIV OF CALIFORNIA - DAVIS	D E WICKLAND	GSFC	S L USTIN	NAG 5 7216	85
39	UNIV OF CALIFORNIA - DAVIS	D L JAN	HQ	S D COLLINS	NAG 9 1048	86
39	UNIV OF CALIFORNIA - DAVIS	M WEI	GSFC	C ANASTASIO	NGT 5 30187	88
39	UNIV OF CALIFORNIA - DAVIS	M Y WEI	GSFC	S L USTIN	NAG 5 6541	85
39	UNIV OF CALIFORNIA - DAVIS	M Y WEI	HQ	M B PARLANGE	NGT 30300	88
39	UNIV OF CALIFORNIA - DAVIS	V C VANDERBILT	ARC	S L USTIN	NCC 2 5343	87
39	UNIV OF CALIFORNIA - DAVIS	V C VANDERBILT	ARC	S USTIN	NCC 2 5223	87
39	UNIV OF CALIFORNIA - IRVINE	A NURRIDIN	HQ	R J RICE	NGT 5 50226	91
39	UNIV OF CALIFORNIA - IRVINE	D DEERING	GSFC	S TRUMBORE	NCC 5 336	91
39	UNIV OF CALIFORNIA - IRVINE	D W DEERING	GSFC	M L GOULDEN	NCC 5 280	91
39	UNIV OF CALIFORNIA - IRVINE	D WICKLAND	GSFC	S TRUMBORE	NAG 5 7301	90
39	UNIV OF CALIFORNIA - IRVINE	F G HALL	GSFC	S TRUMBORE	NAG 5 2306	89
39	UNIV OF CALIFORNIA - IRVINE	M WEI	GSFC	G MAGNUSDOTTIR	NGT 5 30203	91
39	UNIV OF CALIFORNIA - LOS ANGELES	J A KAYE	GSFC	C R MECHOSO	NAG 5 6386	96
39	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	A ELDERING	NAG 5 8812	99
39	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	L SMITH	NAG 5 6657	96
39	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	R P TURCO	NGT 5 30215	101
39	UNIV OF CALIFORNIA - LOS ANGELES	M Y WEI	GSFC	K LIOU	NGT 5 30133	101
39	UNIV OF CALIFORNIA - RIVERSIDE	E T ENGMAN	GSFC	B P MOHANTY	NAG 5 8682	102
39	UNIV OF CALIFORNIA - RIVERSIDE	M Y WEI	GSFC	W VAN GENUCHTEN	NAG 5 6622	102
39	UNIV OF CALIFORNIA - SAN DIEGO	D E WICKLAND	GSFC	D D KEELING	NAG 5 3528	104
39	UNIV OF CALIFORNIA - SAN DIEGO	D E WICKLAND	GSFC	R F KEELING	NAG 5 7637	108
39	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTORM	GSFC	D MILLER	NAG 5 6497	107
39	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTROM	GSFC	D STAMMER	NAG 5 8623	109
39	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTROM	GSFC	P NILER	NAG 5 8322	109
39	UNIV OF CALIFORNIA - SAN DIEGO	E PAYLOR	GSFC	J ROADS	NAG 5 8780	110
39	UNIV OF CALIFORNIA - SAN DIEGO	G SOFFEN	GSFC	J B MINSTER	NAG 5 33019	111
39	UNIV OF CALIFORNIA - SAN DIEGO	J A YODER	GSFC	R FROUIN	NAG 5 6202	106
39	UNIV OF CALIFORNIA - SAN DIEGO	J CAMPBELL	GSFC	B G MITCHELL	NAG 5 8170	109
39	UNIV OF CALIFORNIA - SAN DIEGO	J CAMPBELL	GSFC	R F KEELING	NAG 5 6668	107
39	UNIV OF CALIFORNIA - SAN DIEGO	J W CAMPBELL	GSFC	D STRAMSKI	NAG 5 7100	108
39	UNIV OF CALIFORNIA - SAN DIEGO	J YODER	GSFC	B MITCHELL	NAG 5 6559	107
39	UNIV OF CALIFORNIA - SAN DIEGO	M WEI	GSFC	G MITCHELL	NAG 5 6595	107
39	UNIV OF CALIFORNIA - SAN DIEGO	M Y WEI	GSFC	M WAHLEN	NGT 5 30150	113
39	UNIV OF CALIFORNIA - SAN DIEGO	P DECOLA	GSFC	R F WEISS	NAG 5 8180	109
39	UNIV OF CALIFORNIA - SANTA BARBARA	A ASRAR	HQ	R C FROHN	NAGW 5241	118
39	UNIV OF CALIFORNIA - SANTA BARBARA	A C JANETOS	GSFC	J ESTES	NAG 5 6259	116
39	UNIV OF CALIFORNIA - SANTA BARBARA	A C JANETOS	HQ	T DUNNE	NAGW 5233	118
39	UNIV OF CALIFORNIA - SANTA BARBARA	A J TUYOHOF	GSFC	D E ESTES	NAG 5 3620	115
39	UNIV OF CALIFORNIA - SANTA BARBARA	D DEERING	GSFC	J MELACK	NCC 5 281	118
39	UNIV OF CALIFORNIA - SANTA BARBARA	D E WICKLAND	GSFC	D A ROBERTS	NAG 5 7248	116
39	UNIV OF CALIFORNIA - SANTA BARBARA	D W DEERING	GSFC	O A CHADWICK	NCC 5 282	118
39	UNIV OF CALIFORNIA - SANTA BARBARA	E KRIENS	GSFC	C GAUTIER	NAG 5 31374	118
39	UNIV OF CALIFORNIA - SANTA BARBARA	E T ENGMAN	GSFC	J SHI	NAG 5 8616	117
39	UNIV OF CALIFORNIA - SANTA BARBARA	E T ENGMAN	GSFC	T DUNNE	NAG 5 8396	117
39	UNIV OF CALIFORNIA - SANTA BARBARA	G A SHELTON	ARC	D A ROBERTS	NAG 2 1140	114
39	UNIV OF CALIFORNIA - SANTA BARBARA	G ASRAR	HQ	J DOZIER	NAGW 2602	117
39	UNIV OF CALIFORNIA - SANTA BARBARA	G ASRAR	HQ	J DOZIER	NAGW 5185	117
39	UNIV OF CALIFORNIA - SANTA BARBARA	J W CAMPBELL	GSFC	D A SIEGEL	NAG 5 8319	117
39	UNIV OF CALIFORNIA - SANTA BARBARA	J YODER	GSFC	D SIEGEL	NAG 5 6288	116
39	UNIV OF CALIFORNIA - SANTA BARBARA	J YODER	GSFC	R SMITH	NAG 5 6434	116
39	UNIV OF CALIFORNIA - SANTA BARBARA	K P LULLA	JSC	J E ESTES	NAG 9 1032	117
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	D A SIEGEL	NGT 5 30194	119
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	D SIEGEL	NAG 5 6478	116
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	K C CLARKE	NGT 5 30201	119

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	MERTES	NGT 5 30173	119
39	UNIV OF CALIFORNIA - SANTA BARBARA	M Y WEI	GSFC	N M MAHOWALD	NAG 5 8680	117
39	UNIV OF CALIFORNIA - SANTA BARBARA	N KHAZENIE	GSFC	C GAUTIER	NAG 5 4963	116
39	UNIV OF CALIFORNIA - SANTA BARBARA	S GOGINENI	GSFC	J C DOZIER	NAG 5 4814	115
39	UNIV OF CALIFORNIA - SANTA BARBARA	T JANETOS	GSFC	T DUNNE	NAG 5 6120	116
39	UNIV OF CALIFORNIA - SANTA CRUZ	D J DES MARAIS	ARC	G H RAU	NCC 2 5339	122
39	UNIV OF CALIFORNIA - SANTA CRUZ	J CAMPBELL	GSFC	R KUDELA	NAG 5 8750	121
39	UNIV OF CALIFORNIA - SANTA CRUZ	M Y WEI	GSFC	R S ANDERSON	NGT 5 30112	122
39	UNIV OF CHICAGO	R H THOMAS	GSFC	D MACAYEAL	NAG 5 4087	212
39	UNIV OF CINCINNATI	A C JANETOS	HQ	S ISLAM	NGT 30321	425
39	UNIV OF CINCINNATI	D E WICKLAND	GSFC	R C FROHN	NAG 5 7098	424
39	UNIV OF COLORADO - BOULDER	A C JANETOS	GSFC	D A WESSMAN	NAG 5 6134	137
39	UNIV OF COLORADO - BOULDER	A J TUYAHOV	GSFC	W EMERY	NAG 5 3847	133
39	UNIV OF COLORADO - BOULDER	A JANETOS	GSFC	D OVERPECK	NAG 5 6051	137
39	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	D URBAN	NGT 5 50221	149
39	UNIV OF COLORADO - BOULDER	D C WICKLAND	GSFC	G P ASNER	NAG 5 8320	143
39	UNIV OF COLORADO - BOULDER	D E WICKLAND	GSFC	A GOETZ	NAG 5 4447	135
39	UNIV OF COLORADO - BOULDER	D E WICKLAND	GSFC	A TOWNSEND	NAG 5 7402	141
39	UNIV OF COLORADO - BOULDER	D L WILLIAMS	GSFC	T SCAMBOS	NAG 5 3438	133
39	UNIV OF COLORADO - BOULDER	E ENGMAN	GSFC	D YATES	NAG 5 7541	141
39	UNIV OF COLORADO - BOULDER	E LINDSTROM	GSFC	BORN	NAG 5 6725	139
39	UNIV OF COLORADO - BOULDER	E T ENGMAN	GSFC	R QUALLS	NAG 5 8534	143
39	UNIV OF COLORADO - BOULDER	E T ENGMAN	GSFC	T ZHANG	NAG 5 8615	143
39	UNIV OF COLORADO - BOULDER	G A SOFFEN	GSFC	G H BORN	NGT 5 5	147
39	UNIV OF COLORADO - BOULDER	G ASRAR	GSFC	D A WEISMAN	NGT 5 30003	147
39	UNIV OF COLORADO - BOULDER	G ASRAR	GSFC	D WEBSTER	NGT 5 30023	147
39	UNIV OF COLORADO - BOULDER	G ASRAR	GSFC	J MASLANIK	NGT 5 30034	147
39	UNIV OF COLORADO - BOULDER	G ASRAR	HQ	C WESSMAN	NAGW 4689	145
39	UNIV OF COLORADO - BOULDER	G ASRAR	HQ	D WEISMAN	NGT 5 30026	147
39	UNIV OF COLORADO - BOULDER	J C DODGE	GSFC	D EMERY	NAG 5 6521	138
39	UNIV OF COLORADO - BOULDER	J C DODGE	GSFC	D FOWLER	NAG 5 6666	138
39	UNIV OF COLORADO - BOULDER	J C DODGE	GSFC	D L ARMSTRONG	NAG 5 6636	138
39	UNIV OF COLORADO - BOULDER	J L PRIVETTE	GSFC	N KHATIB	NGT 5 93	147
39	UNIV OF COLORADO - BOULDER	J ZWALLY	GSFC	K STEFFEN	NAG 5 7466	141
39	UNIV OF COLORADO - BOULDER	K H BERGMAN	GSFC	D EVANS	NAG 5 7021	139
39	UNIV OF COLORADO - BOULDER	L MILAN	GSFC	J GILLE	NAS 5 97046	145
39	UNIV OF COLORADO - BOULDER	M E MAIDEN	HQ	R BARRY	NAGW 4755	145
39	UNIV OF COLORADO - BOULDER	M E MAIDEN	HQ	R L AMSTRONG	NAGW 4743	145
39	UNIV OF COLORADO - BOULDER	M REPH	GSFC	R WEAVER	NAS 5 98070	145
39	UNIV OF COLORADO - BOULDER	M WEI	GSFC	L M AVALLONE	NGT 5 30209	148
39	UNIV OF COLORADO - BOULDER	M WEI	GSFC	V K GUPTA	NAG 5 3848	133
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	A GOETZ	NAG 5 6651	138
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	A H LYNCH	NGT 5 30170	148
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	B TOON	NGT 5 30155	148
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	G ASNER	NAG 5 8709	143
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	M TOLBERT	NGT 5 30136	148
39	UNIV OF COLORADO - BOULDER	N KHAZENIE	GSFC	H SPETZLER	NAG 5 6162	137
39	UNIV OF COLORADO - BOULDER	R H THOMAS	GSFC	D STEFFEN	NAG 5 4218	134
39	UNIV OF COLORADO - BOULDER	R H THOMAS	GSFC	D ZHANG	NAG 5 4171	134
39	UNIV OF COLORADO - BOULDER	R H THOMAS	GSFC	T SCAMBOS	NAG 5 4179	134
39	UNIV OF COLORADO - BOULDER	R THOMAS	GSFC	D STEFFEN	NAG 5 4248	134
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	A LYNCH	NAG 5 6820	139
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	D ARMSTONG	NAG 5 4906	136
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	D CURRY	NAG 5 4901	136
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	D MASLANIK	NAG 5 4907	136
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	J WAHR	NAG 5 6875	139
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	R G BARRY	NAG 5 4440	135
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	T A SCAMBOS	NAG 5 7760	141
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	U HERZFELD	NAG 5 6114	137
39	UNIV OF CONNECTICUT	A C JANETOS	HQ	J SILANDER	NGT 30240	152
39	UNIV OF CONNECTICUT	J CAMPBELL	HQ	C ROESLER	NAG 5 7654	151
39	UNIV OF CONNECTICUT	M Y WEI	GSFC	E N ANAGOSTOU	NAG 5 8636	152
39	UNIV OF DAYTON	G S OLSEN	MSFC	A J PIEKUTOWSKI	NAS 8 98216	426
39	UNIV OF DELAWARE	E LINDSTROM	GSFC	F WEBSTER	NAG 5 8556	156
39	UNIV OF DELAWARE	E LINDSTROM	GSFC	X YAN	NAG 5 7949	156
39	UNIV OF DELAWARE	M Y WEI	GSFC	D KLEMAS	NAG 5 6619	155

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	UNIV OF DENVER	C P RINSLAND	LARC	D G MURCRAY	NSG 1432	151
39	UNIV OF DISTRICT OF COLUMBIA	E T ENGMAN	GSFC	G WYCHE-MOORE	NCC 5 421	167
39	UNIV OF FLORIDA	A JOYCE	JSC	S SHIH	NGT13 52710	182
39	UNIV OF FLORIDA	D W DEERING	GSFC	H L GHOLZ	NAG 5 7559	180
39	UNIV OF FLORIDA	G ASRAR	GSFC	C HOLLING	NGT 5 30022	181
39	UNIV OF FLORIDA	M WEI	GSFC	M BINFORD	NAG 5 6652	180
39	UNIV OF FLORIDA	N MAYNARD	GSFC	D WOOD	NAG 5 3772	179
39	UNIV OF FLORIDA	R KNOX	GSFC	J ANDERSON	NAG 5 6632	179
39	UNIV OF GEORGIA	E K GIBSON	JSC	C S ROMANEK	NAG 9 1110	198
39	UNIV OF GEORGIA	M Y WEI	GSFC	R A WELCH	NAG 5 6479	197
39	UNIV OF GUAM - MANGILAO	M WEIM	GSFC	M LANDER	NAG 5 6798	556
39	UNIV OF HAWAII AT MANOA - HONOLULU	D L WILLIAMS	GSFC	D FLYNN	NAG 5 3451	199
39	UNIV OF HAWAII AT MANOA - HONOLULU	E LINDSTROM	GSFC	B QIU	NAG 5 6442	201
39	UNIV OF HAWAII AT MANOA - HONOLULU	E PAYLOR	GSFC	G J FRYER	NAG 5 8745	203
39	UNIV OF HAWAII AT MANOA - HONOLULU	E PAYLOR	GSFC	K F CHEUNG	NAG 5 8748	203
39	UNIV OF HAWAII AT MANOA - HONOLULU	E PAYLOR	GSFC	M BEVIS	NAG 5 8757	203
39	UNIV OF HAWAII AT MANOA - HONOLULU	F HASLER	GSFC	P J MOUGINIS-MARK	NAG 5 2695	199
39	UNIV OF HAWAII AT MANOA - HONOLULU	G ASRAR	HQ	M BEVIS	NAGW 4697	204
39	UNIV OF HAWAII AT MANOA - HONOLULU	J DODGE	GSFC	T NEILSEN	NAG 5 6433	201
39	UNIV OF HAWAII AT MANOA - HONOLULU	J W CAMPBELL	GSFC	M J ATKINSON	NAG 5 7513	202
39	UNIV OF HAWAII AT MANOA - HONOLULU	M BALTUCK	HQ	F JIN	NGT 30312	205
39	UNIV OF HAWAII AT MANOA - HONOLULU	M BALTUCK	HQ	P MOUQUINIS-MARK	NAGW 2468	204
39	UNIV OF HAWAII AT MANOA - HONOLULU	M WEI	GSFC	B POPP	NGT 5 30207	206
39	UNIV OF HAWAII AT MANOA - HONOLULU	M WEI	GSFC	S SHARMA	NAG 5 6673	201
39	UNIV OF HAWAII AT MANOA - HONOLULU	N KHAZENIE	GSFC	L P FLYNN	NAG 5 7730	202
39	UNIV OF HAWAII AT MANOA - HONOLULU	R H THOMAS	GSFC	B M DOUSSET	NAG 5 4024	200
39	UNIV OF HAWAII AT MANOA - HONOLULU	S GOGINENI	GSFC	B DOUSSET	NAG 5 6950	201
39	UNIV OF HAWAII AT MANOA - HONOLULU	S GOGINENI	GSFC	P J FLAMENT	NAG 5 7087	201
39	UNIV OF HAWAII WINDWARD COMM COLL	M Y WEI	GSFC	J E CIOTTI	NAG 5 6799	207
39	UNIV OF IDAHO - MOSCOW	M WEI	GSFC	P GESSLER	NAG 5 6516	207
39	UNIV OF IDAHO - MOSCOW	N KHAZENIE	GSFC	M MILLER	NAG 5 4747	207
39	UNIV OF ILLINOIS - CHICAGO CIRCLE	M F JASINSKI	GSFC	R D CARGO	NAG 5 8359	217
39	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	A JANETOS	GSFC	M HIRSCH	NAG 5 6781	220
39	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D E WICKLAND	GSFC	D DELUCIA	NAG 5 4858	220
39	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	E T ENGMAN	GSFC	P KUMAR	NAG 5 8555	221
39	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	G ASRAR	GSFC	P KUMAR	NGT 5 30041	223
39	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	G ASRAR	HQ	P LUMAR	NAGW 5247	222
39	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	M Y WEI	GSFC	P KUMAR	NAG 5 7170	220
39	UNIV OF IOWA	M WEI	GSFC	G CARMICHAEL	NGT 5 30199	236
39	UNIV OF IOWA	M WEI	GSFC	M ARMSTRONG	NAG 5 6670	234
39	UNIV OF KANSAS	E E LINDSTROM	GSFC	S D GOGINENI	NAG 5 6345	238
39	UNIV OF KANSAS	F G HALL	GSFC	P M RICH	NAG 5 2358	237
39	UNIV OF KANSAS	M WEI	GSFC	K P PRICE	NAG 5 6518	238
39	UNIV OF KANSAS	M Y WEI	GSFC	G S PRASAD	NGT 5 50219	239
39	UNIV OF KANSAS	R THOMAS	GSFC	D A BRAATEN	NAG 5 7053	238
39	UNIV OF KANSAS	R THOMAS	GSFC	J M STILES	NAG 5 6608	238
39	UNIV OF MAINE - ORONO	A JANETOS	GSFC	S SADER	NAG 5 6041	247
39	UNIV OF MAINE - ORONO	J CAMPBELL	GSFC	A THOMAS	NAG 5 6604	247
39	UNIV OF MAINE - ORONO	J RANSON	GSFC	S A SADER	NAG 5 8712	248
39	UNIV OF MAINE - ORONO	J YODER	GSFC	A THOMAS	NAG 5 6558	247
39	UNIV OF MAINE - ORONO	L RANDOLPH	GSFC	R RINDFUSS	NAG 5 6002	247
39	UNIV OF MAINE - ORONO	M Y WEI	GSFC	S A SADER	NAG 5 6672	248
39	UNIV OF MARYLAND - COLLEGE PARK	A C JANETOS	GSFC	J TOWNSHEND	NAG 5 6282	267
39	UNIV OF MARYLAND - COLLEGE PARK	A C JANETOS	GSFC	R DEFRIES	NAG 5 8177	271
39	UNIV OF MARYLAND - COLLEGE PARK	A C JANETOS	GSFC	S PRINCE	NAG 5 4811	265
39	UNIV OF MARYLAND - COLLEGE PARK	A JANETOS	HQ	D DEFRIES	NAG 5 6004	266
39	UNIV OF MARYLAND - COLLEGE PARK	C J TUCKER	GSFC	C O JUSTICE	NAG 5 3243	263
39	UNIV OF MARYLAND - COLLEGE PARK	C J TUCKER	GSFC	J R TOWNSHEND	NAG 5 4056	264
39	UNIV OF MARYLAND - COLLEGE PARK	C J TUCKER	GSFC	N T LAPORTE-GOETZ	NAG 5 8789	272
39	UNIV OF MARYLAND - COLLEGE PARK	C J TUCKER	GSFC	S D PRINCE	NAG 5 7425	269
39	UNIV OF MARYLAND - COLLEGE PARK	C J TUCKER	GSFC	S KALLURI	NAG 5 8575	272
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	GSFC	D D PRINCE	NAG 5 3846	264
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	GSFC	D TOWNSHEND	NAG 5 3850	264
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	GSFC	R E DEFRIES	NAG 5 6970	268
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	GSFC	S D PRINCE	NAG 5 8121	271
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	GSFC	S LIANG	NAG 5 8179	271

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	GSFC	S N GOWARD	NAG 5 7587	269
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	HQ	R DUBAYAH	NAGW 4554	273
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	HQ	S D PRINCE	NAGW 5178	274
39	UNIV OF MARYLAND - COLLEGE PARK	D L WILLIAMS	GSFC	D GOWARD	NAG 5 3454	263
39	UNIV OF MARYLAND - COLLEGE PARK	D L WILLIAMS	GSFC	M A FAHNSTOCK	NAG 5 3455	263
39	UNIV OF MARYLAND - COLLEGE PARK	D L WILLIAMS	GSFC	S GOWARD	NCC 5 408	276
39	UNIV OF MARYLAND - COLLEGE PARK	D M BUTLER	HQ	M KEARNEY	NAGW 3758	273
39	UNIV OF MARYLAND - COLLEGE PARK	D WICKLAND	GSFC	R DUBAYAH	NAG 5 5163	266
39	UNIV OF MARYLAND - COLLEGE PARK	D WICKLAND	HQ	D PRINCE	NAG 5 6094	266
39	UNIV OF MARYLAND - COLLEGE PARK	E LINDSTROM	GSFC	B C DOUGLAS	NAG 5 7948	270
39	UNIV OF MARYLAND - COLLEGE PARK	E LINDSTROM	GSFC	R MURTUGUDDE	NAG 5 8263	271
39	UNIV OF MARYLAND - COLLEGE PARK	E PAYLOR	GSFC	B DOUGLAS	NAG 5 8613	272
39	UNIV OF MARYLAND - COLLEGE PARK	E R LEVINE	GSFC	J HASKETT	NAG 5 7832	270
39	UNIV OF MARYLAND - COLLEGE PARK	E T ENGMAN	GSFC	R T PINKER	NAG 5 8366	271
39	UNIV OF MARYLAND - COLLEGE PARK	E T ENGMAN	GSFC	Y XUE	NAG 5 8386	271
39	UNIV OF MARYLAND - COLLEGE PARK	E WOOD	GSFC	R DUBAYAH	NAG 5 8809	272
39	UNIV OF MARYLAND - COLLEGE PARK	F G HALL	GSFC	K F HUEMMERICH	NAG 5 6069	266
39	UNIV OF MARYLAND - COLLEGE PARK	F HALL	GSFC	K HUMMERICK	NAG 5 7536	269
39	UNIV OF MARYLAND - COLLEGE PARK	G ASRAR	HQ	S D PRINCE	NAGW 1967	273
39	UNIV OF MARYLAND - COLLEGE PARK	H OSEROFF	GSFC	C JUSTICE	NAS 5 31365	274
39	UNIV OF MARYLAND - COLLEGE PARK	J DODGE	GSFC	P ELLINGSON	NAG 5 6483	267
39	UNIV OF MARYLAND - COLLEGE PARK	J DODGE	GSFC	P PINKER	NAG 5 6667	268
39	UNIV OF MARYLAND - COLLEGE PARK	J G COLLATZ	GSFC	L BOUNOUA	NAG 5 8230	271
39	UNIV OF MARYLAND - COLLEGE PARK	J IRONS	GSFC	C A RUSSELL	NAG 5 2856	262
39	UNIV OF MARYLAND - COLLEGE PARK	J JENNER	SSC	S GOWARD	NAG13 98001	274
39	UNIV OF MARYLAND - COLLEGE PARK	J RANSON	GSFC	S LIANG	NAG 5 3548	263
39	UNIV OF MARYLAND - COLLEGE PARK	J ROBINSON	GSFC	R DUBAYAH	NAS 5 97160	274
39	UNIV OF MARYLAND - COLLEGE PARK	J W CAMPBELL	GSFC	R MURTUGUDDE	NAG 5 8595	272
39	UNIV OF MARYLAND - COLLEGE PARK	K J RANSON	GSFC	J TOWNSHEND	NAG 5 2396	262
39	UNIV OF MARYLAND - COLLEGE PARK	K RANSON	GSFC	G SUN	NAG 5 8764	272
39	UNIV OF MARYLAND - COLLEGE PARK	M E MAIDEN	HQ	J TOWNSHEND	NAGW 3235	273
39	UNIV OF MARYLAND - COLLEGE PARK	M E MAIDEN	HQ	J TOWNSHEND	NAGW 4790	273
39	UNIV OF MARYLAND - COLLEGE PARK	M RIENECKER	GSFC	E KALNAY	NAG 5 8528	272
39	UNIV OF MARYLAND - COLLEGE PARK	M WEI	GSFC	E RUSSEK-COHEN	NGT 5 100	277
39	UNIV OF MARYLAND - COLLEGE PARK	M WEI	GSFC	F BAER	NGT 5 30196	277
39	UNIV OF MARYLAND - COLLEGE PARK	M WEI	GSFC	K VINNIKOV	NAG 5 5161	266
39	UNIV OF MARYLAND - COLLEGE PARK	M WEI	GSFC	R DUBAYAH	NAG 5 6319	267
39	UNIV OF MARYLAND - COLLEGE PARK	M WEI	GSFC	R DUBAYAH	NGT 5 99	277
39	UNIV OF MARYLAND - COLLEGE PARK	M WEI	HQ	D DUBAYAH	NAGW 5194	274
39	UNIV OF MARYLAND - COLLEGE PARK	M Y WEI	GSFC	A VERNEKAR	NGT 5 30142	277
39	UNIV OF MARYLAND - COLLEGE PARK	M Y WEI	GSFC	D JA	NAG 5 6617	268
39	UNIV OF MARYLAND - COLLEGE PARK	M Y WEI	GSFC	K PICKERING	NGT 5 50217	277
39	UNIV OF MARYLAND - COLLEGE PARK	N AVAILABLE	HQ	N AVAILABLE	NAGW 4852	273
39	UNIV OF MARYLAND - COLLEGE PARK	P J SELLERS	GSFC	L BOUNOUA	NAG 5 3172	263
39	UNIV OF MARYLAND - COLLEGE PARK	R C HARRISS	GSFC	D TOWNSHEND	NCC 5 190	275
39	UNIV OF MARYLAND - COLLEGE PARK	R H THOMAS	GSFC	D FAHNSTOCK	NAG 5 4006	264
39	UNIV OF MARYLAND - COLLEGE PARK	R H THOMAS	GSFC	M FAHNSTOCK	NAG 5 4255	265
39	UNIV OF MARYLAND - COLLEGE PARK	R H THOMAS	HQ	M FAHNSTOCK	NAGW 4285	273
39	UNIV OF MARYLAND - COLLEGE PARK	S GOGINENI	GSFC	M FAHNSTOCK	NAG 5 6616	268
39	UNIV OF MARYLAND - COLLEGE PARK	S GOGINENI	GSFC	M FAHNSTOCK	NAG 5 7058	268
39	UNIV OF MARYLAND - COLLEGE PARK	S PRINCE	GSFC	S D PRINCE	NAG 5 6421	267
39	UNIV OF MARYLAND - COLLEGE PARK	S SAMADI	GSFC	A J FLAG	NCC 5 128	275
39	UNIV OF MARYLAND - COLLEGE PARK	T JANEOTS	GSFC	J TOWNSHEND	NAG 5 6364	267
39	UNIV OF MARYLAND - COLLEGE PARK	W J WAGNER	GSFC	M R KUNDU	NAG 5 8192	271
39	UNIV OF MARYLAND BALTIMORE COUNTY	A J TUYAHOV	GSFC	D W FORESMAN	NAG 5 6514	278
39	UNIV OF MARYLAND BALTIMORE COUNTY	E R KREINS	GSFC	L L STROW	NAS 5 31378	279
39	UNIV OF MARYLAND BALTIMORE COUNTY	J C DODGE	GSFC	G A MORRIS	NAG 5 6574	278
39	UNIV OF MASSACHUSETTS - AMHERST	N KHAZENIE	GSFC	M STERNHEIM	NAG 5 6161	309
39	UNIV OF MASSACHUSETTS-DARTHMOUTH	C HILL	SSC	B ROTHSCHILD	NAG13 48	310
39	UNIV OF MASSACHUSETTS-DARTHMOUTH	J CAMPBELL	GSFC	J BISAGNI	NAG 5 6605	310
39	UNIV OF MASSACHUSETTS-DARTHMOUTH	M WEI	GSFC	C CHEN	NAG 5 6500	310
39	UNIV OF MIAMI	E J LINDSTROM	GSFC	A MARIANO	NAG 5 6255	183
39	UNIV OF MIAMI	E LINDSTROM	GSFC	R EVANS	NAG 5 6326	183
39	UNIV OF MIAMI	J C DODGE	GSFC	P J MINNETT	NAG 5 6577	183
39	UNIV OF MIAMI	J W CAMPBELL	GSFC	M DONELAN	NAG 5 8161	183
39	UNIV OF MIAMI	J YODER	GSFC	R EVANS	NAG 5 6576	183

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	UNIV OF MIAMI	M RIENECKER	GSFC	C WANG	NAG 5 8229	183
39	UNIV OF MIAMI	M WEI	GSFC	G HEALY	NAG 5 6610	183
39	UNIV OF MICHIGAN - ANN ARBOR	D E WICKLAND	GSFC	K SARABANDI	NAG 5 4939	319
39	UNIV OF MICHIGAN - ANN ARBOR	D E WICKLAND	HQ	K SARABANDI	NAGW 4555	322
39	UNIV OF MICHIGAN - ANN ARBOR	D W DEERING	GSFC	M C DOBSON	NCC 5 296	323
39	UNIV OF MICHIGAN - ANN ARBOR	E T ENGMAN	GSFC	A W ENGLAND	NAG 5 8661	321
39	UNIV OF MICHIGAN - ANN ARBOR	F HASLER	GSFC	R JOHNSON	NAG 5 2876	317
39	UNIV OF MICHIGAN - ANN ARBOR	J RANSON	GSFC	D G BROWN	NAG 5 8630	321
39	UNIV OF MICHIGAN - ANN ARBOR	J RANSON	GSFC	D G BROWN	NAG 5 8719	321
39	UNIV OF MICHIGAN - ANN ARBOR	J RICHARDS	GSFC	S ATREYA	NAG 5 32361	322
39	UNIV OF MICHIGAN - ANN ARBOR	M WEI	GSFC	A ENGLAND	NAG 5 6425	319
39	UNIV OF MICHIGAN - ANN ARBOR	M WEI	GSFC	F T ULABY	NAG 5 3849	317
39	UNIV OF MICHIGAN - ANN ARBOR	M Y WEI	GSFC	C OLSON	NGT 5 30172	324
39	UNIV OF MICHIGAN - ANN ARBOR	R MCKELLIP	SSC	M DOBSON	NAG13 99024	322
39	UNIV OF MISSOURI - COLUMBIA	E LINDSTROM	GSFC	C DAVIS	NAG 5 8557	336
39	UNIV OF MISSOURI - COLUMBIA	E LINDSTROM	GSFC	C K WIKLE	NAG 5 8344	336
39	UNIV OF MISSOURI - COLUMBIA	M Y WEI	GSFC	K PALANIAPPAN	NAG 5 6968	336
39	UNIV OF MISSOURI - COLUMBIA	R H THOMAS	GSFC	C A KLUEVER	NAG 5 3778	335
39	UNIV OF MISSOURI - COLUMBIA	R MCKELLIP	JSC	D BLANCHARD	NAG13 99014	336
39	UNIV OF MISSOURI - COLUMBIA	S GOGINENI	GSFC	C H DAVIS	NAG 5 6714	336
39	UNIV OF MISSOURI - COLUMBIA	S GOGINENI	GSFC	D KLUEVER	NAG 5 6837	336
39	UNIV OF MISSOURI-KANSAS CITY	G ASRAR	HQ	C H DAVIS	NAGW 5243	337
39	UNIV OF MONTANA	A JANETOS	GSFC	D W RUNNING	NAG 5 6575	343
39	UNIV OF MONTANA	D E WICKLAND	GSFC	D W RUNNING	NAG 5 3852	343
39	UNIV OF MONTANA	D E WICKLAND	GSFC	S RUNNING	NAG 5 3469	343
39	UNIV OF MONTANA	D E WICKLAND	GSFC	S W RUNNING	NAG 5 4923	343
39	UNIV OF MONTANA	D E WICKLAND	GSFC	S W RUNNING	NCC 5 382	343
39	UNIV OF MONTANA	D WICKLAND	GSFC	S RUNNING	NAG 5 6719	343
39	UNIV OF MONTANA	E G ENGMAN	GSFC	S W RUNNING	NAG 5 8599	343
39	UNIV OF MONTANA	G ASRAR	GSFC	S RUNNING	NGT 5 30020	343
39	UNIV OF MONTANA	H OSEROFF	GSFC	S W RUNNING	NAG 5 31368	343
39	UNIV OF NEBRASKA - LINCOLN	A J TUYAHOV	HQ	J W MERCHANT	NAGW 3940	345
39	UNIV OF NEBRASKA - LINCOLN	D C WICKLAND	GSFC	D WALTER-SHEA	NAG 5 6990	344
39	UNIV OF NEBRASKA - LINCOLN	D L WILLIAMS	GSFC	J W MERCHANT	NAG 5 3442	344
39	UNIV OF NEBRASKA - LINCOLN	F HALL	GSFC	E WALTER-SHEA	NAG 5 2628	344
39	UNIV OF NEBRASKA - LINCOLN	M WEI	GSFC	D RUNDQUIST	NAG 5 6669	344
39	UNIV OF NEBRASKA - LINCOLN	S GOGINENI	GSFC	M ANDERSON	NGT 5 30175	345
39	UNIV OF NEBRASKA - LINCOLN	W B KRABILL	GSFC	K C KUIVINAN	NAG 5 5024	344
39	UNIV OF NEBRASKA AT KEARNEY	J F DOWDY	MSFC	M GLASSER	NAG 8 1274	345
39	UNIV OF NEVADA - RENO	A C JANETOS	GSFC	K MCGWIRE	NAG 5 6664	346
39	UNIV OF NEW HAMPSHIRE - DURHAM	A C JANETOS	GSFC	B MOORE	NAG 5 6137	351
39	UNIV OF NEW HAMPSHIRE - DURHAM	A C JANETOS	GSFC	C LI	NAG 5 7631	352
39	UNIV OF NEW HAMPSHIRE - DURHAM	D DEERING	GSFC	B MOORE III	NAG 5 8828	354
39	UNIV OF NEW HAMPSHIRE - DURHAM	D E WICKLAND	GSFC	B N ROCK	NAG 5 3978	349
39	UNIV OF NEW HAMPSHIRE - DURHAM	D E WICKLAND	GSFC	D SKOLE	NAG 5 3857	349
39	UNIV OF NEW HAMPSHIRE - DURHAM	D E WICKLAND	GSFC	M MARTIN	NAG 5 3527	349
39	UNIV OF NEW HAMPSHIRE - DURHAM	D E WICKLAND	GSFC	P CRILL	NCC 5 357	354
39	UNIV OF NEW HAMPSHIRE - DURHAM	D E WICKLAND	GSFC	S FROLKING	NAG 5 6623	351
39	UNIV OF NEW HAMPSHIRE - DURHAM	D E WICKLAND	GSFC	S FROLKING	NAG 5 7095	352
39	UNIV OF NEW HAMPSHIRE - DURHAM	D E WICKLAND	HQ	C LI	NAGW 5161	354
39	UNIV OF NEW HAMPSHIRE - DURHAM	D E WICKLAND	HQ	M E MARTIN	NAGW 4783	354
39	UNIV OF NEW HAMPSHIRE - DURHAM	D L WILLIAMS	GSFC	D SKOLE	NAG 5 3440	349
39	UNIV OF NEW HAMPSHIRE - DURHAM	D W DEERING	GSFC	B MOORE	NCC 5 338	354
39	UNIV OF NEW HAMPSHIRE - DURHAM	D WICKLAND	GSFC	B BRASWELL	NAG 5 6115	351
39	UNIV OF NEW HAMPSHIRE - DURHAM	D WICKLAND	GSFC	B ROCK	NAG 5 5192	351
39	UNIV OF NEW HAMPSHIRE - DURHAM	D WICKLAND	GSFC	C LI	NAG 5 6453	351
39	UNIV OF NEW HAMPSHIRE - DURHAM	D WICKLAND	GSFC	D BARTLETT	NCC 5 226	354
39	UNIV OF NEW HAMPSHIRE - DURHAM	E T ENGMAN	GSFC	C J VOROSMARTY	NAG 5 8443	353
39	UNIV OF NEW HAMPSHIRE - DURHAM	E T ENGMAN	GSFC	C J VOROSMARTY	NAG 5 8683	353
39	UNIV OF NEW HAMPSHIRE - DURHAM	F G HALL	GSFC	P M CRILL	NAG 5 2289	348
39	UNIV OF NEW HAMPSHIRE - DURHAM	F G HALL	GSFC	R C HARRISS	NAG 5 2290	349
39	UNIV OF NEW HAMPSHIRE - DURHAM	G ASRAR	GSFC	R TALBOT	NGT 5 30014	355
39	UNIV OF NEW HAMPSHIRE - DURHAM	J A YODER	GSFC	C VOROSMARTY	NAG 5 6452	351
39	UNIV OF NEW HAMPSHIRE - DURHAM	J A YODER	GSFC	J W CAMPBELL	NAG 5 6289	351
39	UNIV OF NEW HAMPSHIRE - DURHAM	M WEI	GSFC	B MOORE	NAG 5 6599	351
39	UNIV OF NEW HAMPSHIRE - DURHAM	M WEI	GSFC	P CRILL	NGT 5 30125	355

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	UNIV OF NEW HAMPSHIRE - DURHAM	N MAYNARD	GSFC	D SKOLE	NAG 5 4616	350
39	UNIV OF NEW HAMPSHIRE - DURHAM	R E MURPHY	HQ	B MOORE	NAGW 2669	354
39	UNIV OF NEW HAMPSHIRE - DURHAM	S GOGINENI	GSFC	W SALAS	NAG 5 8452	353
39	UNIV OF NEW MEXICO-ALBUQUERQUE	A C JANETOS	GSFC	C N DAHM	NAG 5 6999	367
39	UNIV OF NEW MEXICO-ALBUQUERQUE	B L WHITE	HQ	T L COLEMAN	NCCW 87	369
39	UNIV OF NEW MEXICO-ALBUQUERQUE	H CARR	SSC	P HOPKINS	NCC13 98002	369
39	UNIV OF NEW MEXICO-ALBUQUERQUE	M MAIDEN	GSFC	S MORAIN	NAG 5 7691	368
39	UNIV OF NEW ORLEANS	M WEI	GSFC	M JOHNSON	NAG 5 6578	246
39	UNIV OF NEW ORLEANS	N KHAZENIE	GSFC	J J SULLIVAN	NAG 5 6165	246
39	UNIV OF NORTH CAROLINA - CHAPEL HILL	D DEERING	GSFC	R BILSBORROW	NCC 5 295	406
39	UNIV OF NORTH CAROLINA - CHAPEL HILL	D E WICKLAND	GSFC	S C WHALEN	NAG 5 6278	406
39	UNIV OF NORTH CAROLINA - CHAPEL HILL	D W DEERING	GSFC	C S MARTENS	NCC 5 337	406
39	UNIV OF NORTH CAROLINA - CHAPEL HILL	D WICKLAND	GSFC	A MOODY	NAG 5 6583	406
39	UNIV OF NORTH CAROLINA - CHAPEL HILL	M WEI	GSFC	S WALSH	NAG 5 6499	406
39	UNIV OF NORTH CAROLINA AT WILMINGTON	J W CAMPBELL	GSFC	S D EMSLIE	NAG 5 7629	23
39	UNIV OF NORTH CAROLINA AT WILMINGTON	J W CAMPBELL	GSFC	S D EMSLIE	NAG 5 8114	407
39	UNIV OF NORTH DAKOTA	A J TUYAHOV	GSFC	G A SEIELSTAD	NAG 5 3616	408
39	UNIV OF NORTH DAKOTA	C YUHAS	GSFC	M POELLOT	NCC 5 193	408
39	UNIV OF NORTH DAKOTA	D E WICKLAND	GSFC	J L STITH	NAG 5 7950	408
39	UNIV OF NORTH DAKOTA	F HASLER	GSFC	C A WOOD	NAG 5 2696	408
39	UNIV OF NORTH DAKOTA	M WEI	GSFC	G SEIELSTAD	NAG 5 6778	408
39	UNIV OF OKLAHOMA - NORMAN	M WEI	GSFC	K HUMES	NAG 5 6717	431
39	UNIV OF OKLAHOMA - NORMAN	M Y WEI	GSFC	K CRAFTWORD	NGT 5 30151	431
39	UNIV OF OREGON - EUGENE	M WEI	GSFC	P BARTLEIN	NGT 5 50107	436
39	UNIV OF PENNSYLVANIA	M Y WEI	GSFC	H DAI	NGT 5 30165	452
39	UNIV OF PITTSBURGH	N KHAZENIE	GSFC	A A PANAH	NAG 5 6164	453
39	UNIV OF PUERTO RICO - MAYAGUEZ	A C JANETOS	HQ	J CORREDOR	NGT 30272	557
39	UNIV OF PUERTO RICO - MAYAGUEZ	J W CAMPBELL	GSFC	J CORREDOR	NAG 5 7198	556
39	UNIV OF PUERTO RICO - MAYAGUEZ	W E ESAIAS	GSFC	J M LOPEZ	NAG 5 2909	556
39	UNIV OF RHODE ISLAND	E LINDSTROM	GSFC	P CORNILLON	NAG 5 6320	458
39	UNIV OF RHODE ISLAND	E T ENGMAN	GSFC	Y WANG	NAG 5 8739	459
39	UNIV OF RHODE ISLAND	J CAMPBELL	GSFC	J A YODER	NAG 5 6645	459
39	UNIV OF RHODE ISLAND	J YODER	GSFC	P STEGMANN	NAG 5 6560	459
39	UNIV OF RHODE ISLAND	M A PINE	HQ	L M CARTER	NAGW 4632	459
39	UNIV OF RHODE ISLAND	M WEI	GSFC	Y WANG	NAG 5 8829	459
39	UNIV OF RHODE ISLAND	M Y WEI	GSFC	P CORNILLION	NAG 5 6607	459
39	UNIV OF SAN DIEGO	M MAIDEN	GSFC	J J SIMPSON	NCC 5 308	123
39	UNIV OF SOUTH ALABAMA	R ARNOLD	MSFC	M CARPENTER	NCC 8 161	20
39	UNIV OF SOUTH CAROLINA-COLUMBIA	A JOYCE	JSC	J JENSEN	NGT13 52712	463
39	UNIV OF SOUTH CAROLINA-COLUMBIA	E T ENGMAN	GSFC	V LAKSHIMI	NAG 5 8837	463
39	UNIV OF SOUTH CAROLINA-COLUMBIA	R MCKELLIP	JSC	D C COWEN	NAG13 27	463
39	UNIV OF SOUTH FLORIDA	E K GIBSON	JSC	L L ROBBINS	NAG 9 1104	185
39	UNIV OF SOUTH FLORIDA	G ASRAR	GSFC	F MULLER-KARGER	NAG 5 6448	184
39	UNIV OF SOUTH FLORIDA	G ASRAR	GSFC	J WALSH	NAG 5 6449	184
39	UNIV OF SOUTH FLORIDA	J DODGE	GSFC	F E MULLER-KARGER	NAG 5 8175	184
39	UNIV OF SOUTH FLORIDA	M Y WEI	GSFC	G T MITHCHUM	NGT 5 30143	186
39	UNIV OF SOUTH FLORIDA	M Y WEI	GSFC	J R BROOKS	NGT 5 30159	186
39	UNIV OF SOUTHERN CALIFORNIA	J CAMPBELL	GSFC	D BOGUICKI	NAG 5 8309	125
39	UNIV OF SOUTHERN CALIFORNIA	J W CAMPBELL	GSFC	B H JONES	NAG 5 8445	125
39	UNIV OF SOUTHERN CALIFORNIA	J W CAMPBELL	GSFC	R ITURRIAGA	NAG 5 7243	125
39	UNIV OF TENNESSEE - KNOXVILLE	B V GUYNES	MSFC	G J BUNICK	NAG 8 1568	468
39	UNIV OF TEXAS - AUSTIN	E LINDSTROM	GSFC	B TAPLEY	NAG 5 6346	493
39	UNIV OF TEXAS - AUSTIN	E T ENGMAN	GSFC	J S FAMIGLIETTI	NAG 5 8611	494
39	UNIV OF TEXAS - AUSTIN	G ASRAR	GSFC	J FAMIGLIETTI	NGT 5 30008	497
39	UNIV OF TEXAS - AUSTIN	G ASRAR	HQ	J FAMINGLIETTI	NAGW 5240	496
39	UNIV OF TEXAS - AUSTIN	G SOFFE	GSFC	B SCHUTZ	NAS 5 33021	496
39	UNIV OF TEXAS - AUSTIN	K D LULLA	JSC	W T FOWLER	NAG 9 912	495
39	UNIV OF TEXAS - AUSTIN	M RIENECKER	GSFC	J S FAMIGLIETTI	NAG 5 8290	494
39	UNIV OF TEXAS - AUSTIN	M WEI	GSFC	J FAMIGLIETTI	NAG 5 6393	493
39	UNIV OF TEXAS - AUSTIN	M WEI	GSFC	J FAMIGLIETTI	NAG 5 6395	493
39	UNIV OF TEXAS - AUSTIN	M WEI	GSFC	J S FAMIGLIETTI	NGT 5 30162	497
39	UNIV OF TEXAS - AUSTIN	M Y WEI	GSFC	J S FAMIGHETTI	NAG 5 3773	491
39	UNIV OF TEXAS - AUSTIN	N KHAZENIE	GSFC	W T FOWLER	NAG 5 6300	493
39	UNIV OF TEXAS - AUSTIN	R FITZGERALD	GSFC	B TAPLEY	NAS 5 97213	496
39	UNIV OF TEXAS - AUSTIN	S GOGINENI	GSFC	D D BLANKENSHIP	NAG 5 7910	494
39	UNIV OF TEXAS - DALLAS	M WEI	GSFC	R STERN	NAG 5 6534	498

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	UNIV OF TEXAS - EL PASO	M MATEU	HQ	S A STARKS	NCCW 89	499
39	UNIV OF TEXAS - EL PASO	N ANNE	GSFC	C GROAT	NAG 5 6795	499
39	UNIV OF TEXAS - EL PASO	N KHAZENIE	GSFC	V HARDER	NAG 5 6163	499
39	UNIV OF TEXAS AT SAN ANTONIO	J C SAAER	KSC	M D DESAI	NAG10 155	500
39	UNIV OF TOLEDO	D E WICKLAND	GSFC	K P CZAJKOWSKI	NAG 5 8052	427
39	UNIV OF TOLEDO	H W JONES	ARC	K R SRIDHAR	NCC 2 5220	428
39	UNIV OF TOLEDO	M Y WEI	GSFC	K P CZAJKOWSKI	NAG 5 8671	428
39	UNIV OF UTAH	D DEERING	GSFC	J EHLERINGER	NCC 5 297	502
39	UNIV OF UTAH	D E WICKLAND	GSFC	J R EHLERINGER	NAG 5 7447	502
39	UNIV OF UTAH	E ENGMAN	GSFC	D TARBOTON	NAG 5 7521	502
39	UNIV OF UTAH	J C DODGE	GSFC	K JEZEK	NAG 5 8550	502
39	UNIV OF UTAH	M WEI	GSFC	G HEPNER	NAG 5 6646	502
39	UNIV OF UTAH	M WEI	GSFC	J R EHLERINGER	NGT 5 30202	503
39	UNIV OF UTAH	M WEI	GSFC	R R FORSTER	NGT 5 30184	503
39	UNIV OF UTAH	S GOGINENI	GSFC	R FORESTER	NAG 5 7871	502
39	UNIV OF VERMONT	D E WICKLAND	HQ	L A MORRISSEY	NAGW 5026	506
39	UNIV OF VERMONT	V C VANDERBILT	ARC	G P LIVINGSTON	NCC 2 5342	506
39	UNIV OF VIRGINIA	A C JANETOS	GSFC	C O JUSTICE	NAG 5 4368	523
39	UNIV OF VIRGINIA	A C JANETOS	GSFC	C O JUSTICE	NAG 5 8162	525
39	UNIV OF VIRGINIA	A C JANETOS	GSFC	P DESANKER	NAG 5 6384	523
39	UNIV OF VIRGINIA	A JANETOS	GSFC	H SHUGART	NAG 5 6043	523
39	UNIV OF VIRGINIA	A JANETOS	GSFC	T SMITH	NAG 5 6351	523
39	UNIV OF VIRGINIA	C J TUCKER	GSFC	C O JUSTICE	NAG 5 8838	525
39	UNIV OF VIRGINIA	C TUCKER	GSFC	C JUSTICE	NAG 5 7417	524
39	UNIV OF VIRGINIA	D E WICKLAND	GSFC	H H SHUGART	NAG 5 7956	524
39	UNIV OF VIRGINIA	D E WICKLAND	GSFC	W R EMANUEL	NAG 5 8612	525
39	UNIV OF VIRGINIA	D WICKLAND	GSFC	C O JUSTICE	NAG 5 7862	524
39	UNIV OF VIRGINIA	D WICKLAND	GSFC	H H SHUGART	NAG 5 6279	523
39	UNIV OF VIRGINIA	D WICKLAND	GSFC	H SHUGART	NAG 5 6584	524
39	UNIV OF VIRGINIA	F G HALL	GSFC	H H SHUGART	NAG 5 2295	522
39	UNIV OF VIRGINIA	H K RAMPRIYAN	GSFC	G D EMMITT	NAG 5 7033	524
39	UNIV OF VIRGINIA	J PRIVETT	GSFC	R J SWAPP	NAG 5 7266	524
39	UNIV OF VIRGINIA	M Y WEI	GSFC	J D ALBERTSON	NAG 5 8670	525
39	UNIV OF VIRGINIA	STOCKEY	GSFC	M GARSTANG	NAG 5 1961	522
39	UNIV OF WASHINGTON	A C JANETOS	GSFC	J RICHEY	NAG 5 4712	535
39	UNIV OF WASHINGTON	A T CHANG	GSFC	L TSANG	NAG 5 4739	536
39	UNIV OF WASHINGTON	D E WICKLAND	GSFC	D E RICHEY	NAG 5 3958	535
39	UNIV OF WASHINGTON	D E WICKLAND	GSFC	D R GILLESPIE	NAG 5 3729	535
39	UNIV OF WASHINGTON	D W DEERING	GSFC	J E RICHEY	NCC 5 345	540
39	UNIV OF WASHINGTON	D WICKLAND	GSFC	D LETTENMAIER	NAG 5 7300	538
39	UNIV OF WASHINGTON	E LINDSTROM	GSFC	A T JESSUP	NAG 5 7526	538
39	UNIV OF WASHINGTON	E LINDSTROM	GSFC	D KELLY	NAG 5 6392	536
39	UNIV OF WASHINGTON	E LINDSTROM	GSFC	K KELLY	NAG 5 8296	539
39	UNIV OF WASHINGTON	F G HALL	GSFC	D P LETTENMAIER	NAG 5 2294	534
39	UNIV OF WASHINGTON	J DODGE	GSFC	R LINDSAY	NAG 5 6493	537
39	UNIV OF WASHINGTON	J R BLOCKER	MSFC	M BAKER	NAG 8 1512	539
39	UNIV OF WASHINGTON	J W CAMPBELL	GSFC	M PERRY	NAG 5 7604	538
39	UNIV OF WASHINGTON	M WEI	GSFC	D P LETTENMAIER	NGT 5 30220	542
39	UNIV OF WASHINGTON	M WEI	GSFC	J M WALLACE	NGT 5 30195	542
39	UNIV OF WASHINGTON	M WEI	GSFC	S R EMERSON	NGT 5 30213	542
39	UNIV OF WASHINGTON	M Y WEI	GSFC	D LETTENMAIER	NAG 5 6365	536
39	UNIV OF WASHINGTON	M Y WEI	GSFC	J E RICHEY	NGT 5 30149	542
39	UNIV OF WASHINGTON	M Y WEI	GSFC	J E RICHEY	NGT 5 30161	542
39	UNIV OF WASHINGTON	M Y WEI	GSFC	T M HINCKLEY	NGT 5 30157	542
39	UNIV OF WASHINGTON	M Y WEI	HQ	D P LETTENMAIER	NAGW 4712	540
39	UNIV OF WASHINGTON	N KHAZENIE	GSFC	J M DECOSMO	NAG 5 6297	536
39	UNIV OF WASHINGTON	R E MURPHY	HQ	J E RICHEY	NAGW 2652	540
39	UNIV OF WASHINGTON	R H THOMAS	GSFC	S MARTIN	NAG 5 3624	535
39	UNIV OF WASHINGTON	S GOGINENI	GSFC	A SCHWEIGER	NAG 5 7847	538
39	UNIV OF WASHINGTON	S GOGINENI	GSFC	D A ROTHROCK	NAG 5 4375	535
39	UNIV OF WASHINGTON	S GOGINENI	GSFC	D D WINBRENNER	NAG 5 4728	536
39	UNIV OF WASHINGTON	S GOGINENI	GSFC	D ROTHROCK	NAG 5 6388	536
39	UNIV OF WASHINGTON	S GOGINENI	GSFC	D WINEBRENNER	NAG 5 6819	537
39	UNIV OF WASHINGTON	S GOGINENI	GSFC	S MARTIN	NAG 5 6894	537
39	UNIV OF WISCONSIN - MADISON	B N HOLBEN	GSFC	E PRINS	NAG 5 4751	549
39	UNIV OF WISCONSIN - MADISON	D DEERING	GSFC	J FOLEY	NCC 5 335	553

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
39	UNIV OF WISCONSIN - MADISON	D E WICKLAND	GSFC	J A FOLEY	NAG 5 3513	548
39	UNIV OF WISCONSIN - MADISON	D E WICKLAND	GSFC	J FOLEY	NAG 5 7214	550
39	UNIV OF WISCONSIN - MADISON	D E WICKLAND	GSFC	S T GOWER	NAG 5 7298	550
39	UNIV OF WISCONSIN - MADISON	D E WICKLAND	GSFC	S T GOWER	NAG 5 8069	550
39	UNIV OF WISCONSIN - MADISON	D W DEERING	GSFC	J M NORMAN	NCC 5 294	553
39	UNIV OF WISCONSIN - MADISON	E KREINS	GSFC	W L SMITH	NAS 5 31377	552
39	UNIV OF WISCONSIN - MADISON	E T ENGMAN	GSFC	D MACKAY	NAG 5 8554	551
39	UNIV OF WISCONSIN - MADISON	E T ENGMAN	GSFC	J A FOLEY	NAG 5 8597	551
39	UNIV OF WISCONSIN - MADISON	F G HALL	GSFC	S T GOWER	NAG 5 2601	547
39	UNIV OF WISCONSIN - MADISON	F HASLER	GSFC	G DIAK	NAG 5 2877	548
39	UNIV OF WISCONSIN - MADISON	G ASRAR	GSFC	G TRIPOLI	NGT 5 30037	553
39	UNIV OF WISCONSIN - MADISON	G SOFFEN	GSFC	C BENTLEY	NAS 5 33015	552
39	UNIV OF WISCONSIN - MADISON	J DODGE	GSFC	F BRETHERTON	NAG 5 7192	550
39	UNIV OF WISCONSIN - MADISON	J DODGE	GSFC	F P BRETHERTON	NAG 5 4974	549
39	UNIV OF WISCONSIN - MADISON	J DODGE	GSFC	R J FOX	NAG 5 8250	550
39	UNIV OF WISCONSIN - MADISON	M WEI	GSFC	D MACKAY	NAG 5 6535	549
39	UNIV OF WISCONSIN - MADISON	M WEI	GSFC	G R DIAK	NAG 5 3493	548
39	UNIV OF WISCONSIN - MADISON	M Y WEI	GSFC	H F WANG	NGT 5 30146	553
39	UNIV OF WISCONSIN - MADISON	M Y WEI	GSFC	W BRINKMANN	NGT 5 30160	554
39	UNIV OF WISCONSIN - MADISON	N LAL	GSFC	J W PERCIVAL	NAG 5 2694	547
39	UNIV OF WISCONSIN - MADISON	S GOGINENI	GSFC	J R KEY	NAG 5 8625	551
39	UNIV OF WYOMING	D E WICKLAND	GSFC	E HUNT	NAG 5 3861	555
39	UNIV OF WYOMING	R H THOMAS	HQ	T R PARISH	NAGW 2666	555
39	UTAH STATE UNIV	J F DOWDY	MSFC	F BAKER	NGT 8 52866	505
39	UTAH STATE UNIV	M WEI	GSFC	R GILLIES	NAG 5 6598	504
39	UTAH STATE UNIV	S PEARSON	MSFC	J R DENNISON	NAS 8 98221	504
39	VA POLYTECH INST & ST UNIV	M WEI	GSFC	R H WYNNE	NAG 5 6539	530
39	VA POLYTECH INST & ST UNIV	M WEI	GSFC	R H WYNNE	NGT 5 30198	531
39	VALDOSTA STATE UNIV	J F DOWDY	MSFC	M LEAKE	NAG 8 1264	198
39	VALPARISO UNIV	J C DODGE	GSFC	G A MORRIS	NAG 5 8490	230
39	WASHINGTON UNIV - ST	M WEI	GSFC	R ARVIDSON	NAG 5 6533	339
39	WAYNE STATE UNIV	D E WICKLAND	HQ	N S GOEL	NAGW 3260	325
39	WEST CHESTER UNIV OF PA	N KHAZENIE	GSFC	R M BUSCH	NAG 5 6080	455
39	WEST VIRGINIA UNIV	D LONGEDDY	MSFC	J G WELLS	NAG 8 1496	544
39	WEST VIRGINIA UNIV	J POE	MSFC	T MELOY	NAG 8 1494	544
39	WESTERN MICHIGAN UNIV	JOYCE	SSC	C CHRISTOPHER	NAG13 60	325
39	WHEELING JESUIT UNIV	N KHAZENIE	GSFC	R J MEYERS	NAG 5 8628	545
39	WHEELING JESUIT UNIV	NKHAZENIE	GSFC	R MYERS	NAG 5 6961	545
39	WOODS HOLE OCEANOGRAPHIC INST	A JANETOS	GSFC	H SOSIK	NAG 5 7538	311
39	WOODS HOLE OCEANOGRAPHIC INST	G ASRAR	GSFC	D J MCGILLICUDDY	NAG 5 6455	311
39	WOODS HOLE OCEANOGRAPHIC INST	J K RANSON	GSFC	K J NADELHOFFER	NAG 5 8450	311
39	WOODS HOLE OCEANOGRAPHIC INST	J W CAMPBELL	GSFC	H M SOSIK	NAG 5 7445	311
39	WOODS HOLE OCEANOGRAPHIC INST	M WEI	GSFC	H SOSIK	NGT 5 30206	311
39	WOODS HOLE OCEANOGRAPHIC INST	S GOGINENI	GSFC	R A KRISHFIELD	NAG 5 7770	311
39	YALE UNIV	M WEI	GSFC	R SMITH	NAG 5 6720	154
41	ALABAMA A&M UNIV	L CHOU	MSFC	G S LIAW	NAG 8 1626	2
41	ALABAMA A&M UNIV	L FOSTER	MSFC	G S KUAB	NAG 8 1365	1
41	ARIZONA STATE UNIV	A CHAIT	GRC	K D SQUIRES	NAG 3 2081	24
41	ARIZONA STATE UNIV	C D WIESEMAN	LARC	A CHATTOPADYAY	NAG 1 1988	24
41	ARIZONA STATE UNIV	F H SCHITZ	ARC	V L WELLS	NGT 2 52204	27
41	ARIZONA STATE UNIV	H MIURA	ARC	A CHATTOPADHYAY	NAG 2 908	24
41	ARIZONA STATE UNIV	J HEEG	LARC	A CHATTOPADHYAY	NAG 1 1648	23
41	ARIZONA STATE UNIV	R D JOSLIN	LARC	W S SARIC	NAG 1 1925	24
41	AUBURN UNIV	D F VORACEK	DFRC	D M BARRETT	NCC 4 103	3
41	AUBURN UNIV	R G KVATERNIK	LARC	G T FLOWERS	NGT 1 52120	4
41	BETHUNE - COOKMAN COLLEGE	S DUTCZAK	KSC	G W BECKLES	NAG10 195	167
41	BOWLING GREEN STATE UNIV	J L DOLCE	GRC	S BALLARD	NAS 3 99202	409
41	BROWN UNIV	H L ATKINS	LARC	C SHU	NAG 1 2070	455
41	BROWN UNIV	H L ATKINS	LARC	C W SHU	NAG 1 1145	455
41	BROWN UNIV	M D DAHL	GRC	J T LIU	NAG 3 1484	456
41	BROWN UNIV	P C MURPHY	LARC	A E PEARSON	NAG 1 1932	455
41	BROWN UNIV	P C MURPHY	LARC	A E PEARSON	NAG 1 2201	455
41	CALIFORNIA INST OF TECH	J H STARNES	GSFC	W G KNAUSS	NAG 1 1975	43
41	CALIFORNIA INST OF TECH	M B TISCHER	ARC	D J BIEZAD	NAG 2 1316	43
41	CALIFORNIA INST OF TECH	Y C CHO	ARC	M GHARIB	NAG 2 1087	43
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	G S SEIDEL	HQ	R M CUMMINGS	NGT 10012	51

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	L DUKE	DFRC	D BIEZARD	NAG 4 142	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	M B TISCHER	ARC	D BIEZAD	NAG 2 1024	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	M B TISCHER	ARC	D BIEZAD	NAG 2 1092	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	M B TISCHER	ARC	D BIEZAD	NCC 2 983	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	M B TISCHER	ARC	D J BIEZAD	NAG 2 1169	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	R RAY	DFRC	T W CARPENTER	NAG 4 101	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	R RAY	DFRC	T W CARPENTER	NAG 4 102	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	Y M RIZK	ARC	R M CUMMINGS	NCC 2 5279	51
41	CALIFORNIA ST	K GUPTA	DFRC	W E MORTENSEN	NAG 4 171	51
41	CALIFORNIA STATE UNIV - FRESNO	J BRADEN	DFRC	S MAHANTY	NAG 4 153	52
41	CALIFORNIA STATE UNIV - FRESNO	K GUPTA	DFRC	S MAHANTY	NAG 4 172	52
41	CALIFORNIA STATE UNIV - LOS ANGELES	E L DUKE	DFRC	T ADENIKA-MORROW	NAG 4 127	52
41	CALIFORNIA STATE UNIV - LOS ANGELES	J BRADEN	DFRC	L - HSIA	NAG 4 151	53
41	CALIFORNIA STATE UNIV - LOS ANGELES	K GUPTA	DFRC	C WU	NAG 4 174	53
41	CALIFORNIA STATE UNIV - LOS ANGELES	K GUPTA	DFRC	M MIRMIRANI	NAG 4 175	53
41	CALIFORNIA STATE UNIV - LOS ANGELES	K K GUPTA	DFRC	M MIRMIRANI	NAG 4 136	53
41	CALIFORNIA STATE UNIV-BAKERSFIELD	K SHY	DFRC	K L NYBERG	NAG 4 140	54
41	CALIFORNIA WESTERN SCH OF LAW	B E LEWANDOWSKI	GRC	A L JOHNSON	NAG 3 2001	54
41	CARNEGIE - MELLON UNIV	M B TISCHER	ARC	C E THORPE	NAG 2 1276	437
41	CARNEGIE - MELLON UNIV	M D SALAS	LARC	S TA	NAG 1 1666	437
41	CARNEGIE - MELLON UNIV	R T BIEDRON	LARC	O GHATTAS	NAG 1 2090	437
41	CARNEGIE - MELLON UNIV	W K ANDERSON	LARC	S TA	NAG 1 1687	437
41	CASE WESTERN RESERVE UNIV	C R TALLEY	MSFC	J R KADAMBF	NCC 3 263	410
41	CASE WESTERN RESERVE UNIV	D NG	GRC	D HAZONY	NAG 3 2243	410
41	CASE WESTERN RESERVE UNIV	M G POTAPCZUK	GRC	E RESHOTKO	NAG 3 2170	409
41	CASE WESTERN RESERVE UNIV	M POTAPCZUK	GRC	E RESHOTKO	NAG 3 2286	410
41	CASE WESTERN RESERVE UNIV	S M ARNOLD	GRC	R M AIKEN	NCC 3 464	411
41	CHRISTOPHER NEWPORT UNIV	J C HARDIN	LARC	J E MARTIN	NAG 1 1888	506
41	CHRISTOPHER NEWPORT UNIV	T E PINELLI	LARC	W B WILLIAMS	NAG 1 2112	506
41	CHRISTOPHER NEWPORT UNIV	T E PINELLI	LARC	W B WILLIAMS	NAG 1 2219	507
41	CITY UNIV OF NY CITY COLLEGE	D O DAVIS	GRC	Y ANDREOPOULOS	NAG 3 2163	370
41	CITY UNIV OF NY CITY COLLEGE	K J BREISACHER	GRC	P P HO	NAG 3 2074	370
41	CITY UNIV OF NY CITY COLLEGE	S M JOSHI	LARC	K SOBEL	NAG 1 2028	370
41	CLARK ATLANTA UNIV	E COX	DFRC	L MOETI	NAG 4 149	187
41	CLARK ATLANTA UNIV	H D ROSS	GRC	Y D YEBOAH	NAG 3 1773	186
41	CLARK ATLANTA UNIV	R R TACINA	GRC	R R TACINA	NAG 3 1996	187
41	CLARK ATLANTA UNIV	T S GATES	LARC	D R VEAZIE	NCC 1 270	187
41	CLARK ATLANTA UNIV	T S GATES	LARC	D R VEAZIE	NCC 1 341	187
41	CLARKSON UNIV	C S YAO	LARC	M N GLAUSER	NGT 1 52214	371
41	CLARKSON UNIV	J JUANG	LARC	R F SCHMIT	NGT 1 52222	371
41	CLARKSON UNIV	M K PONTON	LARC	M N GLAUSER	NCC 1 325	371
41	CLARKSON UNIV	W L SELLERS	LARC	M GLAUSER	NGT 1 52102	371
41	CLEMSON UNIV - CLEMSON	C C CHAMIS	GRC	G FADEL	NAG 3 2046	459
41	CLEVELAND STATE UNIV	D R LUDWICZAK	GRC	P A BOSEIA	NAG 3 2197	413
41	CLEVELAND STATE UNIV	D ROTH	GRC	T NAYFEH	NAG 3 2276	413
41	CLEVELAND STATE UNIV	K J MELCHER	GRC	M B IBRAHIM	NCC 3 646	415
41	CLEVELAND STATE UNIV	K JULES	GRC	P P LIN	NAG 3 2029	413
41	CLEVELAND STATE UNIV	L KIRALY	GRC	J HEMANN	NCC 3 585	414
41	COLLEGE OF WILLIAM AND MARY	J H STARNES, JR.	LARC	D M MANOS	NCC 1 356	508
41	COLLEGE OF WILLIAM AND MARY	J M SEINER	LARC	D MANOS	NAG 1 1856	507
41	COLLEGE OF WILLIAM AND MARY	J R SCHIESS	LARC	S PORK	NGT 1 52165	508
41	COLLEGE OF WILLIAM AND MARY	J SOBIESKI	LARC	R K KINCAID	NAG 1 2077	507
41	COLORADO STATE UNIV	R J GUNDERMAN	GRC	V N BRINGI	NAS 3 26410	128
41	COLUMBIA UNIV	J GRADY	GSFC	S M KAHN	NAS 5 98037	377
41	CUYAHOGA COMM COLLEGE	F H YARRIS	GRC	R L MOSS	NAG 3 1778	415
41	DELFT UNIV OF TECH-NETHERLANDS	J H STARNES, JR.	LARC	J ARBOCZ	NAG 1 2129	559
41	DREXEL UNIV	C M BELCASTRO	LARC	A C LAU	NCC 1 278	440
41	DREXEL UNIV	C M BELCASTRO	LARC	B C CHANG	NCC 1 224	440
41	DREXEL UNIV	M G POTAPCZUK	GRC	C A RUFF	NAG 3 2171	440
41	DREXEL UNIV	M G POTAPCZUK	GRC	D A RUFF	NAG 3 2295	440
41	DREXEL UNIV	R R TACINA	GRC	K J CHOI	NAG 3 1421	440
41	DREXEL UNIV	R R TACINA	GRC	K J CHOI	NAG 3 2212	440
41	DUKE UNIV	D HOYNIK	GRC	K HALL	NAG 3 1433	397
41	DUKE UNIV	S R COLE	LARC	E H DOWELL	NAG 1 1569	397
41	EMBRY-RIDDLE AERONAUTICAL UNIV	B J HOLMES	LARC	S HAMPTON	NCA 1 133	167
41	FAYETTEVILLE STATE UNIV	S MASSENBERG	LARC	I EDWARDS	NAG 1 2227	400

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
41	FLA INTERNATIONAL UNIV	A M MITSKEVICH	KSC	M A CENTENO	NAG10 150	168
41	FLORIDA A&M UNIV	A H AUSLENDER	LARC	J A JOHNSON	NAG 1 1930	169
41	FLORIDA A&M UNIV	A H AUSTENDER	LARC	J A JOHNSON	NAG 1 2114	169
41	FLORIDA A&M UNIV	A L JOHNS	GRC	A KROTHAPALLI	NAG 3 1663	169
41	FLORIDA A&M UNIV	C A SMITH	ARC	A KROTHAPALLI	NCC 2 1018	170
41	FLORIDA A&M UNIV	J C ROSS	ARC	A KROTHAPALLI	NCC 2 956	170
41	FLORIDA A&M UNIV	K GUPTA	DFRC	M ABDUDLLAH	NAG 4 164	169
41	FLORIDA A&M UNIV	M POTAPCZUK	GRC	J A JOHNSON	NAG 3 2198	169
41	FLORIDA A&M UNIV	W SELLERS	LARC	J JOHNSON	NCC 1 252	170
41	FLORIDA ATLANTIC UNIV	J H STARNES, JR.	LARC	T ELISHAKOFF	NAG 1 2115	171
41	FLORIDA ATLANTIC UNIV	J H STARNES	LARC	I ELISHAKOFF	NAG 1 1310	171
41	FLORIDA ATLANTIC UNIV	J W POSEY	LARC	S A GLEGG	NAG 1 1202	171
41	FLORIDA ATLANTIC UNIV	J W POSEY	LARC	S L GLEGG	NAG 1 1993	171
41	FLORIDA INST OF TECH	P A PADILLA	LARC	F HAM	NAG 1 1957	171
41	FLORIDA MEMORIAL COLLEGE	J DIGGS	KSC	D T COLEMAN	NAG10 196	172
41	FLORIDA STATE UNIV	C TAM	LARC	C K TAM	NAG 1 1977	172
41	FLORIDA STATE UNIV	E A KREJSA	GRC	C K TAM	NAG 3 1683	173
41	FLORIDA STATE UNIV	G K YAMAUCHI	ARC	L M LOURENCO	NAG 2 1183	173
41	FLORIDA STATE UNIV	J M SEINER	LARC	L LOURENCO	NAG 1 1952	172
41	FLORIDA STATE UNIV	J M SEINER	LARC	M Y HUSSANI	NAG 1 1889	172
41	FLORIDA STATE UNIV	M K NORUM	LARC	A KROTHAPALLI	NAG 1 2078	173
41	FLORIDA STATE UNIV	R R ANTCLIFF	LARC	C K TAM	NAG 1 2145	173
41	FLORIDA STATE UNIV	W R WATSON	LARC	K W TAM	NAG 1 1986	173
41	GEORGE WASHINGTON UNIV	C V ECKSTROM	LARC	R R SANDUSKY	NAG 1 1972	158
41	GEORGE WASHINGTON UNIV	E C WYNNE	LARC	R H TOLSON	NCC 1 208	159
41	GEORGE WASHINGTON UNIV	G S DISKIN	LARC	A D CUTLER	NCC 1 217	159
41	GEORGE WASHINGTON UNIV	J G BATTERSON	LARC	V KLEIN	NCC 1 326	159
41	GEORGE WASHINGTON UNIV	L R CLARK	LARC	H LIEBOWITZ	NCC 1 14	159
41	GEORGE WASHINGTON UNIV	P C MURPHY	LARC	H LIEBOWITZ	NCC 1 29	159
41	GEORGE WASHINGTON UNIV	R L YANG	LARC	J L WHITESIDES	NCC 1 47	159
41	GEORGE WASHINGTON UNIV	R T BRIGHT	LARC	H LIEBOWITZ	NCC 1 24	159
41	GEORGIA INST OF TECH	A C TRUJILLO	LARC	A R PRITCHETT	NAG 1 2014	189
41	GEORGIA INST OF TECH	C I STATLER	ARC	D GOLDSMAN	NAG 2 1291	190
41	GEORGIA INST OF TECH	C L MEYERS	GRC	D P SCHRAGE	NCC 3 592	192
41	GEORGIA INST OF TECH	E A KREJSA	GRC	K K ATIUJA	NAG 3 1682	190
41	GEORGIA INST OF TECH	E A PALMER	ARC	C M MITCHELL	NCC 2 961	192
41	GEORGIA INST OF TECH	G L GILES	LARC	D N MAVRIS	NAG 1 1662	188
41	GEORGIA INST OF TECH	G L STEFKO	GRC	O G MCGEE	NAG 3 2205	190
41	GEORGIA INST OF TECH	G M LYLES	MSFC	J R OLDS	NAG 8 1597	191
41	GEORGIA INST OF TECH	H D ROSS	GRC	S MENON	NAG 3 1610	190
41	GEORGIA INST OF TECH	I S RAJU	LARC	S DONYLUK	NGT 1 52143	193
41	GEORGIA INST OF TECH	J F DOWDY	MSFC	J R OLDS	NGT 8 52854	194
41	GEORGIA INST OF TECH	J KANESHIGE	ARC	A CALIS	NGT 2 52255	193
41	GEORGIA INST OF TECH	J T HOWELL	GSFC	J R OLDS	NCC 8 108	192
41	GEORGIA INST OF TECH	J TOTAH	ARC	A J CALISE	NAG 2 1174	189
41	GEORGIA INST OF TECH	K K GUPTA	DFRC	J CORRADO	NGT 4 52405	193
41	GEORGIA INST OF TECH	K R SACKSTEDER	GRC	S MENON	NAG 3 2192	190
41	GEORGIA INST OF TECH	L S BANGERT	LARC	R J ENGLAR	NAG 1 2051	189
41	GEORGIA INST OF TECH	M B TRACY	LARC	K K AHUJA	NAG 1 1734	188
41	GEORGIA INST OF TECH	M D MOORE	LARC	D N MAVRIS	NAG 1 2149	189
41	GEORGIA INST OF TECH	P A GELHAUSEN	LARC	D N MAVRIS	NAG 1 1786	188
41	GEORGIA INST OF TECH	P A GELHAUSEN	LARC	D N MAVRIS	NAG 1 1793	188
41	GEORGIA INST OF TECH	P A GELHAUSEN	LARC	M R KIRBY	NGT 1 52111	192
41	GEORGIA INST OF TECH	P F WERCINSKI	ARC	S M RUFFIN	NGT 2 52253	193
41	GEORGIA INST OF TECH	P KOLOZIEJ	ARC	R OLDS	NCC 2 5332	192
41	GEORGIA INST OF TECH	R A LEPSCH	LARC	J R OLDS	NGT 1 52163	193
41	GEORGIA INST OF TECH	R T N. CHEN	ARC	A J CALISE	NCC 2 981	192
41	GEORGIA INST OF TECH	T L GALLOWAY	ARC	D MAVRIS	NAG 2 1047	189
41	GEORGIA INST OF TECH	U HUETER	MSFC	D R OLDS	NAG 8 1302	191
41	GEORGIA INST OF TECH	V BATTISTE	ARC	A B PRITCHETT	NAG 2 1314	190
41	GEORGIA INST OF TECH	Y H YU	ARC	D C SCHRAGE	NCC 2 945	192
41	HAMPTON UNIV	D N NOGA	GRC	D CEZZAR	NAG 3 1792	511
41	HAMPTON UNIV	D R SCHRYER	LARC	A AKYURTLU	NAG 1 2223	511
41	HAMPTON UNIV	E COX	DFRC	A SMITH	NAG 4 147	512
41	HAMPTON UNIV	J W POSEY	LARC	M H MORGAN	NAG 1 1835	510
41	HAMPTON UNIV	J W POSEY	LARC	M H MORGAN	NAG 1 1936	510

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
41	HAMPTON UNIV	R A HATHAWAY	LARC	C W LOWE	NAG 1 2017	511
41	HAMPTON UNIV	R C STRAWN	ARC	H HU	NAG 2 1331	511
41	HAMPTON UNIV	S E MASSENBERG	LARC	C REAVES	NAG 1 1834	510
41	HOWARD UNIV	H L BELVIN	LARC	S T SMITH	NAG 1 2124	160
41	HOWARD UNIV	M MACARAEG	LARC	A R PRITCHETT	NAG 1 2015	160
41	HOWARD UNIV	R R ANTOLIFF	LARC	S T SMITH	NAG 1 2148	160
41	ILLINOIS INST OF TECH	R W WIEZIEN	LARC	T C CORKE	NAG 1 2180	208
41	ILLINOIS INST OF TECH	S P WILKINSON	LARC	T C CORKE	NCC 1 167	208
41	IOWA STATE UNIV	J BURKEN	DFRC	P LU	NCC 4 117	232
41	IOWA STATE UNIV	J BURKEN	DFRC	P LU	NCC 4 122	232
41	IOWA STATE UNIV	M G POTAPCZUK	GRC	A P ROTHMAYER	NAG 3 2218	231
41	ISRAEL INST OF TECH	S R ELLIS	ARC	A J GRUNWALD	NCC 2 1023	558
41	JACKSON STATE UNIV	D E NOGA	GRC	D N BHALLA	NCC 3 437	332
41	JACKSON STATE UNIV	D G SICKOREZ	KSC	S BOLLS	NAG 9 990	332
41	JOHNS HOPKINS UNIV	C J TREFNY	GRC	D VAN WIE	NAS 3 99146	258
41	JOHNS HOPKINS UNIV	D VITABLANO	GSFC	W MOOS	NAS 5 30403	258
41	JOHNS HOPKINS UNIV	J BRISTOW	GSFC	J BRISTOW	NAG 5 8741	257
41	JOHNS HOPKINS UNIV	J BRISTOW	GSFC	P A STADTER	NAG 5 8655	257
41	JOHNSON C	I M BLANKSON	GRC	M F ATTIA	NAG 3 2290	400
41	KANSAS STATE UNIV	D M JOSHI	LARC	D G KELKAR	NCC 1 226	237
41	KANSAS STATE UNIV	R K GREIF	ARC	P J GORDER	NCC 2 871	237
41	KANSAS STATE UNIV	S M JOSHI	LARC	A G KELKAR	NCC 1 348	237
41	LEHIGH UNIV	L A POVINELLI	GRC	J D WALKER	NAG 3 1578	441
41	LORAIN COUNTY COMM COLLEGE	F H YARRIS	GRC	G PILLAINAYAGAM	NAG 3 1780	416
41	LOUISIANA STATE UNIV - BATON ROUGE	J R SCHWAB	GRC	S ACHARYA	NAG 3 1641	242
41	LOUISIANA TECH UNIV	R SWANSON	LARC	C LIU	NAG 1 2136	244
41	MARQUETTE UNIV	K M HURLBERT	JSC	A B DUNCAN	NAG 9 925	545
41	MASSACHUSETTS INST OF TECH	A J STRAZISAR	GRC	E M GREITZER	NAG 3 1513	292
41	MASSACHUSETTS INST OF TECH	A K OWEN	GRC	C S TAN	NAG 3 2051	293
41	MASSACHUSETTS INST OF TECH	A REEHORST	GRC	L WAITZ	NAG 3 2179	293
41	MASSACHUSETTS INST OF TECH	A REEHORST	GRC	R J HANSMAN	NAG 3 2178	293
41	MASSACHUSETTS INST OF TECH	B J WOOLFORD	JSC	D J NEWMAN	NAG 9 1089	303
41	MASSACHUSETTS INST OF TECH	B SRIDHAR	ARC	E FERON	NCC 2 1044	305
41	MASSACHUSETTS INST OF TECH	C PARRA	JSC	D W MILLER	NCC 9 63	306
41	MASSACHUSETTS INST OF TECH	D S GREER	DFRC	M DRELA	NAG 4 120	293
41	MASSACHUSETTS INST OF TECH	E B FITE	GRC	D A WAITZ	NAG 3 2222	293
41	MASSACHUSETTS INST OF TECH	G A SOFFEN	GSFC	K BREUER	NGT 5 25	306
41	MASSACHUSETTS INST OF TECH	G J FOLLEN	GRC	R HAIMES	NAG 3 2019	293
41	MASSACHUSETTS INST OF TECH	J BURKEN	DFRC	J D PADUANO	NCC 4 113	305
41	MASSACHUSETTS INST OF TECH	J BURKEN	DFRC	J D PADUANO	NCC 4 123	305
41	MASSACHUSETTS INST OF TECH	J H STARNES	LARC	P A LAGACE	NAG 1 991	290
41	MASSACHUSETTS INST OF TECH	J J ADAMCZYK	GRC	C S TAN	NAG 3 1679	292
41	MASSACHUSETTS INST OF TECH	J J ADAMCZYK	GRC	C S TAN	NAG 3 2078	293
41	MASSACHUSETTS INST OF TECH	J R DEBONIS	GRC	I A WAITZ	NCC 3 414	305
41	MASSACHUSETTS INST OF TECH	J W FLETCHER	ARC	N D HAM	NCC 2 5253	305
41	MASSACHUSETTS INST OF TECH	K GUPTA	DFRC	J PERAIRE	NAG 4 157	293
41	MASSACHUSETTS INST OF TECH	K J BOWLES	GRC	H L MCMANUS	NAG 3 2054	293
41	MASSACHUSETTS INST OF TECH	K L BIBB	LARC	J PERAIRE	NAG 1 2122	291
41	MASSACHUSETTS INST OF TECH	K L SUDER	GRC	C S TAN	NAG 3 2101	293
41	MASSACHUSETTS INST OF TECH	K S BEY	LARC	J PERAIRE	NAG 1 1587	290
41	MASSACHUSETTS INST OF TECH	L POVINELLI	GRC	I A WATZ	NCC 3 632	305
41	MASSACHUSETTS INST OF TECH	M BRIGHT	GRC	J PADUANO	NAG 3 2052	293
41	MASSACHUSETTS INST OF TECH	M C WALLER	LARC	J K KUCHAR	NAG 1 2189	291
41	MASSACHUSETTS INST OF TECH	M HATHAWAY	GRC	C S TAN	NAG 3 2045	293
41	MASSACHUSETTS INST OF TECH	M T PALMER	LARC	R J HANSMAN	NAG 1 1857	291
41	MASSACHUSETTS INST OF TECH	P H MIRICK	LARC	C E CESNIK	NCC 1 323	304
41	MASSACHUSETTS INST OF TECH	R D JOSLIN	LARC	N W HAGOOD	NCC 1 259	304
41	MASSACHUSETTS INST OF TECH	S A APP	GRC	J L KERREBROCK	NCC 3 265	305
41	MASSACHUSETTS INST OF TECH	S C LOZITO	ARC	J K KUCHAR	NAG 2 1111	292
41	MASSACHUSETTS INST OF TECH	T A TANG	LARC	A T PATERN	NAG 1 1978	291
41	MASSACHUSETTS INST OF TECH	T J DAVIS	ARC	J P CLARKE	NAG 2 1272	292
41	MICHIGAN STATE UNIV	B P WILLIS	GRC	T I SHIH	NAG 3 2203	312
41	MICHIGAN STATE UNIV	D DAVIS	GRC	T SHIH	NAG 3 2234	312
41	MICHIGAN STATE UNIV	W M HUMPHREYS, JR.	LARC	L M HUDY	NGT 1 52216	314
41	MICHIGAN TECHNOLOGICAL UNIV	R R TACINA	GRC	S L YANG	NAG 3 2088	314
41	MISSISSIPPI STATE UNIV	D J BAKER	LARC	M RAIS-BHANI	NAG 1 2038	333

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
41	MISSISSIPPI STATE UNIV	D L HUFF	GRC	J M JANUS	NAG 3 1699	333
41	MISSISSIPPI STATE UNIV	E R MCFARLAND	GRC	D L WHITFIELD	NAG 3 1712	333
41	MISSISSIPPI STATE UNIV	J L THOMAS	LARC	D L WITFIELD	NAG 1 1990	332
41	MISSISSIPPI STATE UNIV	S S YOON	ARC	D L WHITFIELD	NAG 2 1144	333
41	MISSISSIPPI STATE UNIV	S S YOON	ARC	D L WHITFIELD	NAG 2 1232	333
41	MONTANA STATE UNIV	J A LAUB	ARC	A DEMETRIADES	NGT 2 52202	342
41	NEW MEXICO STATE UNIV - LAS CRUCES	R S NOCK	GSFC	K LANE	NAS 5 31688	366
41	NEW MEXICO STATE UNIV - LAS CRUCES	R S NOCK	WFF	N APPLICABLE	NAS 5 98009	366
41	NEW MEXICO STATE UNIV - LAS CRUCES	R W WLEZIEN	LARC	G A REYNOLDS	NAG 1 1868	364
41	NY UNIV	C TUNG	ARC	L TING	NAG 2 1322	387
41	NORFOLK STATE UNIV	K GUPTA	DFRC	D HULBERT	NAG 4 165	514
41	NORFOLK STATE UNIV	R A HATHAWAY	LARC	P TUCKER-HOGAN	NAG 1 2230	514
41	NORTH CAROLINA A&T STATE UNIV	A BEAM	MSFC	N	NAG 8 1646	402
41	NORTH CAROLINA A&T STATE UNIV	D F NOGA	GRC	J Y SHEN	NAG 3 2055	401
41	NORTH CAROLINA A&T STATE UNIV	D R REDDY	GRC	K N SHIVAKUMAR	NCC 3 576	402
41	NORTH CAROLINA A&T STATE UNIV	J BRADEN	DFRC	S CHANDRA	NAG 4 152	401
41	NORTH CAROLINA A&T STATE UNIV	K GUPTA	DFRC	A V HOMAIFAR	NAG 4 131	401
41	NORTH CAROLINA A&T STATE UNIV	K GUPTA	DFRC	J CLOUSE	NAG 4 132	401
41	NORTH CAROLINA A&T STATE UNIV	K GUPTA	DFRC	S CHANDRA	NGT 4 52409	402
41	NORTH CAROLINA A&T STATE UNIV	K J KACYNISKI	GRC	S CHANDRA	NAG 3 1734	401
41	NORTH CAROLINA A&T STATE UNIV	K K GUPTA	DFRC	M HUMAN	NAG 4 118	401
41	NORTH CAROLINA A&T STATE UNIV	R K BOGUE	DFRC	D HOMAIFAR	NCC 4 105	402
41	NORTH CAROLINA A&T STATE UNIV	R S CALLOWAY	LARC	F FERGUSON	NAG 1 2225	400
41	NORTH CAROLINA A&T STATE UNIV	W WHIGGLOW, JR.	LARC	E O DOSE	NCC 1 255	402
41	NORTH CAROLINA STATE UNIV	C C POE	LARC	F G YUAN	NAG 1 1981	403
41	NORTH CAROLINA STATE UNIV	H H HAMILTON	LARC	F R DE JARNETTE	NGT 1 52172	405
41	NORTH CAROLINA STATE UNIV	K SUTTON	LARC	H A HASSAN	NCC 1 112	404
41	NORTH CAROLINA STATE UNIV	L S BANGERT	LARC	D D CHOKANI	NAG 1 1819	403
41	NORTH CAROLINA STATE UNIV	R D JOSLIN	LARC	H A HASSAN	NAG 1 1991	403
41	NORTH CAROLINA STATE UNIV	R D JOSLIN	LARC	N CHOKANI	NCC 1 335	405
41	NORTH CAROLINA STATE UNIV	R W WLEZIEN	LARC	N D CHOKANI	NAG 1 1829	403
41	NORTH CAROLINA STATE UNIV	S P WILKINSON	LARC	H A HASSAN	NGT 1 52177	405
41	NORTH DAKOTA STATE UNIV	K GUPTA	DFRC	Y XU	NGT 4 52411	407
41	OHIO STATE UNIV	B J HOLMES	LARC	G CHUBB	NCA 1 146	421
41	OHIO STATE UNIV	J L MUSGRAVE	GRC	R FORTNER	NCA 3 122	421
41	OHIO STATE UNIV	J M ORASANU	ARC	P J SMITH	NAG 2 995	417
41	OHIO STATE UNIV	T H GUO	GRC	K M PASSINO	NAG 3 2084	417
41	OHIO STATE UNIV	T L KANTZ	GRC	R G PARKER	NAG 3 1979	417
41	OHIO STATE UNIV	T P RATUVASKY	GRC	G M GREYOREK	NAG 3 2007	417
41	OHIO UNIV	R M HUESCHEN	LARC	J M RANKIN	NCC 1 351	422
41	OKLAHOMA STATE UNIV	K GUPTA	DFRC	A ARENA	NAG 4 176	430
41	OKLAHOMA STATE UNIV	K GUPTA	DFRC	A ARENA	NGT 4 52412	430
41	OKLAHOMA STATE UNIV	K GUPTA	DFRC	D S ARENA	NGT 4 52402	430
41	OKLAHOMA STATE UNIV	K K GUPTA	DFRC	A ARENA	NAG 4 154	430
41	OLD DOMINION UNIV	C BELCASTRO	LARC	W GRAY	NAS 1 99093	518
41	OLD DOMINION UNIV	C R MCCLINTON	LARC	P BALAKUMAR	NAG 1 2100	516
41	OLD DOMINION UNIV	D H RUDY	LARC	D E KEYES	NAG 1 2184	517
41	OLD DOMINION UNIV	E J PRIOR	LARC		NAS 1 19858	518
41	OLD DOMINION UNIV	H W JARRETT	LARC	M L SANDY	NAG 1 2212	517
41	OLD DOMINION UNIV	I S RAJU	LARC	R PRABHAKARAN	NAG 1 2156	517
41	OLD DOMINION UNIV	J B MALONE	LARC	O A KANDIL	NAG 1 648	515
41	OLD DOMINION UNIV	J H STARNES	LARC	C MEI	NCC 1 284	519
41	OLD DOMINION UNIV	J H STARNES, JR.	LARC	C MEI	NGT 1 52173	519
41	OLD DOMINION UNIV	J SOBIESKI	LARC	D T NGUYEN	NGT 1 52210	520
41	OLD DOMINION UNIV	J W POSEY	LARC	M H MORGANMAR	NAG 1 1934	516
41	OLD DOMINION UNIV	K S BEY	LARC	G J HOU	NAG 1 1985	516
41	OLD DOMINION UNIV	M L BLOSSER	LARC	C MEI	NAG 1 2150	517
41	OLD DOMINION UNIV	N J GROOW	LARC	C P BRITCHER	NGT 1 52171	519
41	OLD DOMINION UNIV	R A THOMPSON	LARC	P BALAKUMAR	NAG 1 2054	516
41	OLD DOMINION UNIV	R D JOSLIN	LARC	O A KANDIL	NCC 1 322	519
41	OLD DOMINION UNIV	R W WILLIS	LARC	R MUKKAMALA	NAG 1 2102	516
41	OLD DOMINION UNIV	S E MASSENBERG	LARC	S N TIWARI	NCC 1 349	519
41	OLD DOMINION UNIV	S E MASSENBERG	LARC	S TIWARI	NCC 1 232	518
41	OLD DOMINION UNIV	S M JOSHI	LARC	B A NEWMAN	NCC 1 273	518
41	OLD DOMINION UNIV	T B GATSKI	LARC	C E GROSCH	NAG 1 2121	517
41	OLD DOMINION UNIV	T L TURNER	LARC	C MEI	NAG 1 1684	515

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
41	OLD DOMINION UNIV	T L TURNER	LARC	C MEI	NAG 1 2141	517
41	OLD DOMINION UNIV	W T FREEMAN	LARC	H P BAO	NAG 1 2195	517
41	ORAL ROBERTS UNIV	T H STENGLE	GSFC	T H STENGLE	NAG 5 6231	430
41	OREGON STATE UNIV	A NURRIDIN	HQ	BURNETT	NGT 5 50092	435
41	PENN STATE UNIV	D E ASHPIS	GRC	B LAKSHMINARAYANA	NAG 3 2025	443
41	PENN STATE UNIV	F FARASSAT	LARC	L N LONG	NAG 1 2093	442
41	PENN STATE UNIV	H J GLADDEN	GRC	G S DULIKRAVICH	NAG 3 1995	443
41	PENN STATE UNIV	H P TRINH	MSFC	R J SANTORO	NCC 8 46	449
41	PENN STATE UNIV	J B MALONE	LARC	D B BAKER	NGT 1 52166	450
41	PENN STATE UNIV	J F DOWDY	MSFC	G A SMITH	NGT 8 52856	451
41	PENN STATE UNIV	J W POSEY	LARC	L N LONG	NAG 1 1367	441
41	PENN STATE UNIV	K L BREISACHER	GRC	V G YANG	NAG 3 2151	443
41	PENN STATE UNIV	K S BRENTNER	LARC	P J MORRIS	NAG 1 1924	441
41	PENN STATE UNIV	K TUCKER	MSFC	M K LEHMAN	NGT 8 52829	451
41	PENN STATE UNIV	M B TRACY	LARC	L N LONG	NAG 1 1833	441
41	PENN STATE UNIV	M W NIXON	LARC	E C SMITH	NGT 1 52109	450
41	PENN STATE UNIV	M W NIXON	LARC	F S GHANDI	NAG 1 2050	441
41	PENN STATE UNIV	R BOYLE	GRC	B LAKSHMINARAYANA	NAG 3 1736	443
41	PENN STATE UNIV	R D BUEHRLE	LARC	V W SPARROW	NCC 1 329	449
41	PENN STATE UNIV	R R ANTOLIFF	LARC	P J MORRIS	NAG 1 2147	442
41	PENN STATE UNIV	S M JOSHI	LARC	A RAY	NCC 1 249	449
41	PENN STATE UNIV	T NORUM	LARC	P K MCLAUGHLIN	NGT 1 52191	450
41	PENN STATE UNIV	U HUETER	MSFC	C MERKLE	NAS 8 40890	448
41	PENN STATE UNIV	Y H YU	ARC	F C SMITH	NCC 2 943	449
41	PRAIRIE VIEW A&M UNIV	E BURRELL	JSC	A KUMARN	NAG 9 926	473
41	PRAIRIE VIEW A&M UNIV	E COX	DFRC	R WILKINS	NAG 4 148	473
41	PRINCETON UNIV	A NURRIDIN	GSFC	L PAGE	NGT 5 50033	359
41	PRINCETON UNIV	A NURRIDIN	HQ	M YAMADA	NGT 5 50065	360
41	PRINCETON UNIV	C C WEY	GRC	F L DRYER	NAG 3 2164	356
41	PRINCETON UNIV	J S LING	GRC	P M CHAIKIN	NAG 3 1762	356
41	PRINCETON UNIV	P G MAGHAMI	LARC	H C CURTISS	NAG 2 561	356
41	PRINCETON UNIV	S E CLIFF	ARC	T J BAKER	NAG 2 1029	356
41	PRINCETON UNIV	S E CLIFF	ARC	T J BAKER	NAG 2 1327	356
41	PURDUE UNIV	A NURRIDIN	HQ	T ZWIER	NGT 5 50130	229
41	PURDUE UNIV	B T UPCHURCH	LARC	J P SULLIVAN	NAG 1 1794	225
41	PURDUE UNIV	B T UPCHURCH	LARC	J P SULLIVAN	NAG 1 2109	226
41	PURDUE UNIV	B T UPCHURCH	LARC	W A CROSSLEY	NAG 1 2119	226
41	PURDUE UNIV	C TUNG	ARC	J P SULLIVAN	NCC 2 5208	228
41	PURDUE UNIV	D C JANETZKE	GRC	S FLEETER	NAG 3 2169	226
41	PURDUE UNIV	D H BUFFUM	GRC	S FLEETER	NAG 3 1730	226
41	PURDUE UNIV	D N BOWDITCH	GRC	S N MURTHY	NAG 3 1291	226
41	PURDUE UNIV	D R REDDY	GRC	S S RAO	NAG 3 1898	226
41	PURDUE UNIV	D W BARTLETT	LARC	G L ROTH	NGT 1 52198	228
41	PURDUE UNIV	J R SCOTT	GRC	A S LYRINTZIS	NAG 3 2095	226
41	PURDUE UNIV	K J KACYNSKI	GRC	S H COLICOTT	NAG 3 1766	226
41	PURDUE UNIV	K K GUPTA	DFRC	A E FRAZHO	NGT 4 52400	228
41	PURDUE UNIV	M P WERNET	GRC	J P SULLIVAN	NAG 3 1814	226
41	PURDUE UNIV	M THARP	GRC	S MURTHY	NAG 3 2246	227
41	PURDUE UNIV	S A RIZZI	LARC	J F DOYLE	NAG 1 1749	225
41	PURDUE UNIV	S R KOTTAPALLI	ARC	W A CROSSLEY	NGT 2 52225	228
41	PURDUE UNIV	S R THOMAS	GRC	S B MUTHY	NAG 3 2107	226
41	PURDUE UNIV	S R THOMAS	GRC	S MURTHY	NAG 3 2217	226
41	RENSSELAER POLYTECH INST	J SOBIESKI	LARC	P HAJELA	NAG 1 2089	388
41	RENSSELAER POLYTECH INST	J T HOWELL	GSFC	L N MYRABO	NCC 8 112	389
41	RENSSELAER POLYTECH INST	J W CONNELL	LARC	J V CRIVELLO	NAG 1 1939	387
41	RENSSELAER POLYTECH INST	S M JOSHI	LARC	H KAUFMAN	NAG 1 2075	387
41	RICE UNIV	A GRADY-HISER	ARC	J MELLOR-CRUMMEY	NAG 2 1181	474
41	RICE UNIV	P J HALEY	LARC	S M KELLOGG	NGT 1 52215	477
41	RICE UNIV	R D JOSLIN	LARC	S S COLLIS	NAG 1 1976	474
41	RICE UNIV	R R ANTOLIFF	LARC	S S COLLIS	NAG 1 2134	474
41	SAINT CLOUD STATE UNIV	R W WILLS	LARC	D RANKIN	NAG 1 1788	326
41	SAINT LOUIS UNIV	T B GATSKI	LARC	W D THACKER	NAG 1 1983	335
41	SALISH KOOTENAI COLLEGE	E L DUKE	DFRC	J GOBERT	NAG 4 128	343
41	SAN JOSE STATE UNIV	B D MCNALLY	ARC	K P JORDAN	NCC 2 1097	59
41	SANTA CLARA UNIV	J D PHILLIPS	ARC	M ARDEMA	NCC 2 5250	60
41	SOUTHERN UNIV & A&M COLLEGE	D F NOGA	GRC	D MOREMAN	NAG 3 1662	244

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
41	SOUTHERN UNIV & A&M COLLEGE	I M BLANKSON	HQ	V T MONTGOMERY	NAGW 3882	245
41	SOUTHERN UNIV & A&M COLLEGE	L BERKE	GRC	R A MIRSHAMS	NAG 3 1825	244
41	SOUTHERN UNIV & A&M COLLEGE	M B TISCHER	ARC	L LAWSON	NAG 2 1006	244
41	STANFORD UNIV	A A WRAY	ARC	C T BOWMAN	NAG 2 1219	62
41	STANFORD UNIV	B L BERRIER	LARC	I KROO	NAG 1 2034	61
41	STANFORD UNIV	D G MURRI	LARC	I M KROO	NAG 1 2056	61
41	STANFORD UNIV	D KWAK	ARC	S K LELE	NAG 2 1373	62
41	STANFORD UNIV	D P BENCZE	ARC	J J ALONSI	NCC 2 5226	68
41	STANFORD UNIV	G G ZILLIAC	ARC	J J ALONSO	NCC 2 1065	67
41	STANFORD UNIV	J C ROSS	ARC	B CANTWELL	NGT 2 52220	69
41	STANFORD UNIV	J H STAMES	LARC	F K CHANG	NAG 1 1879	61
41	STANFORD UNIV	J H STARNES, JR.	LARC	F K CHANG	NAG 1 2107	61
41	STANFORD UNIV	J LARIMER	ARC	S ROCK	NCC 2 5249	68
41	STANFORD UNIV	L L GREEN	LARC	I KROO	NCC 1 253	67
41	STANFORD UNIV	M H SIMS	ARC	R H CANNON	NGT 2 52207	69
41	STANFORD UNIV	M S MURBACH	ARC	B LUSIGNAN	NCC 2 5256	68
41	STANFORD UNIV	P KOLODZIEJ	ARC	B CANTWELL	NCC 2 5197	68
41	STANFORD UNIV	P KOLODZIEJ	ARC	B CANTWELL	NCC 2 5335	69
41	STANFORD UNIV	R A MEHTA	ARC	B J CANTWELL	NCC 2 1074	67
41	STANFORD UNIV	R R ANTCLIFF	LARC	I KROO	NAG 1 2144	61
41	STANFORD UNIV	S E CLIFF	ARC	G A JAMESON	NAG 2 1141	62
41	STANFORD UNIV	S E CLIFF	ARC	S K LELE	NAG 2 1213	62
41	STANFORD UNIV	S P SHARMA	ARC	M A CAPPELLI	NCC 2 5352	69
41	STANFORD UNIV	S S DAVIS	ARC	L ROBERTS	NCC 2 55	67
41	STANFORD UNIV	T J DAVIS	ARC	B WIDROW	NCC 2 1020	67
41	STANFORD UNIV	W J FEIREISEN	ARC	D BAGANOFF	NCC 2 5200	68
41	STATE UNIV OF NY - BINGHAMTON	C M BELCASTRO	LARC	N WU	NCC 1 336	391
41	STATE UNIV OF NY - BUFFALO	J SOBIESKI	LARC	K E LEWIS	NGT 1 52185	391
41	SYRACUSE UNIV	C B MCGINLEY	LARC	M A KEGERISE	NGT 1 52169	396
41	SYRACUSE UNIV	J R WOOD	GRC	T DANG	NAG 3 2089	395
41	SYRACUSE UNIV	S MASSENBERG	LARC	J E LA GRAFF	NAG 1 1797	395
41	TEXAS A&M UNIV	G D BRADHWAR	JSC	L A BRABY	NAS 9 99096	481
41	TEXAS A&M UNIV	H MIURA	ARC	D L DARMOFAL	NGT 2 52213	482
41	TEXAS A&M UNIV	M BRENNER	DFRC	T W STRGANAC	NCC 4 111	482
41	TEXAS A&M UNIV	R J BOYLE	GRC	J C HAN	NAG 3 2002	479
41	TEXAS A&M UNIV	R M ONDLER	JSC	J L VALASEK	NAG 9 1085	481
41	TEXAS A&M UNIV	R THOM	MSFC	L SAN ANDREAS	NAG 8 1395	480
41	TEXAS A&M UNIV	S G LABBE	JSC	J L MARTINEZ	NAS 9 97002	481
41	TEXAS A&M UNIV	T H PULLIAM	ARC	D L DARMOFAL	NGT 2 52226	482
41	TEXAS A&M UNIV	W L SELLERS, III	LARC	D K REDINIOTIS	NAG 1 1753	478
41	THE CATHOLIC UNIV OF AMERICA	P C SCHUTTE	LARC	J A DULEY	NGT 1 52137	166
41	THE UNIV OF CENTRAL FLORIDA	B ST. CYR	KSC	J S KAPAT	NAG13 98011	177
41	THE UNIV OF CENTRAL FLORIDA	O MCLENDEZ	KSC	J G KOTNOUR	NAG10 230	177
41	THE UNIV OF CENTRAL FLORIDA	R LEE	KSC	V H DESAI	NAG10 163	176
41	TUSKEGEE UNIV	G G PODBOY	GRC	D SREE	NAG 3 1977	5
41	TUSKEGEE UNIV	G PITALO	SSC	E SHEPPARD	NAG13 33	6
41	TUSKEGEE UNIV	J D COLLINS	KSC	N VAHDAT	NAG10 166	5
41	TUSKEGEE UNIV	K A NORLIN	DFRC	S FIRASAT ALI	NAG 4 169	5
41	TUSKEGEE UNIV	P FAUGHNAN	KSC	H A AGLAN	NAG10 168	5
41	UNIV HOUSTON-HOUSTON	K R SHARIFF	ARC	W SCHOPPA	NGT 2 52235	485
41	UNIV OF MINN	C M BELCASTRO	LARC	G J BALAS	NCC 1 337	330
41	UNIV OF MINN	H C NEEDLEMAN	GSFC	T W JONES	NAG 5 5055	327
41	UNIV OF MINN	K SHARIFF	ARC	T S LUNDGREN	NCC 2 5221	330
41	UNIV OF MINN	R LIND	DFRC	G J BALAS	NAG 4 159	327
41	UNIV OF MINN	R T CHEN	ARC	Y ZHAO	NCC 2 809	330
41	UNIV OF MINN	S GARG	GRC	W L GARRARD	NAG 3 1975	326
41	UNIV OF MINN	T J DAVIS	ARC	Y ZHAO	NCC 2 990	330
41	UNIV STUTTGART	G ZILLIAC	ARC	I S WAGNER	NAG 2 1155	559
41	UNIV OF AKRON	H E KAUTZ	GRC	W K BINIENDA	NCC 3 651	423
41	UNIV OF AKRON	J R SCOTT	GRC	W K BINIENDA	NAG 3 2201	423
41	UNIV OF AKRON	S M ARNOLD	GRC	A F SALEEB	NAG 3 1747	422
41	UNIV OF AKRON	S M ARNOLD	GRC	A F SALEEB	NCC 3 441	423
41	UNIV OF ALABAMA - HUNTSVILLE	B H NERREN	MSFC	G L WORKMAN	NAG 8 1071	14
41	UNIV OF ALABAMA - HUNTSVILLE	C A O'NEILL	JSC	M W MAIER	NCC 9 49	17
41	UNIV OF ALABAMA - HUNTSVILLE	D SIERSMA	MSFC	J BONEMETTI	NAG 8 1307	14
41	UNIV OF ALABAMA - HUNTSVILLE	F SIX	MSFC	D HAWK	NGT 8 52825	18

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
41	UNIV OF ALABAMA - HUNTSVILLE	J DOWDY	MSFC	S WU	NGT 8 52882	18
41	UNIV OF ALABAMA - HUNTSVILLE	M FAZAH	MSFC	C HAWK	NCC 8 123	16
41	UNIV OF ALABAMA - HUNTSVILLE	S RUSSELL	MSFC	G WORKMAN	NAG 8 1548	15
41	UNIV OF ALABAMA - UNIV	A NURRIDIN	HQ	M	NGT 5 50129	20
41	UNIV OF ALABAMA - UNIV	I C STATLER	ARC	D B BROWN	NAG 2 1290	18
41	UNIV OF ALABAMA - UNIV	J F MACPHERSON	MSFC	J A BRUNTY	NAG 8 1422	19
41	UNIV OF ALABAMA - UNIV	K GUPTA	DFRC	R E SMITH	NGT 4 52403	20
41	UNIV OF ARIZONA	B A SINGER	LARC	H F FASEL	NGT 1 52206	41
41	UNIV OF ARIZONA	J B HALL, JR.	LARC	K RAMONHALLI	NAG 1 1825	28
41	UNIV OF ARIZONA	J H STARNES	LARC	E MADENCI	NAG 1 1652	28
41	UNIV OF ARIZONA	J H STARNES	LARC	E MADENCI	NAG 1 2041	29
41	UNIV OF ARIZONA	K GUPTA	SSC	H F FASEL	NGT 4 52408	41
41	UNIV OF ARIZONA	L TESSLER	LARC	E MADENCI	NAG 1 1731	28
41	UNIV OF ARIZONA	M H KAISS	ARC	K R SRIDHAR	NCC 2 5316	40
41	UNIV OF ARIZONA	M M JUROTICH	GSFC	R L THOMPSON	NAS 5 31289	40
41	UNIV OF ARIZONA	S KOTTAPALLI	ARC	P CHATTOPADHYAY	NAG 2 1046	29
41	UNIV OF ARIZONA	S S DAVIS	ARC	H F FASEL	NGT 2 52224	41
41	UNIV OF ARKANSAS - LITTLE ROCK	A JOYCE	SSC	C MEADORS	NGT13 52718	43
41	UNIV OF ARKANSAS - LITTLE ROCK	A JOYCE	SSC	M K HUDSON	NGT13 52707	42
41	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	CHARLES	NGT 5 50061	83
41	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	D PACKARD	NGT 5 50066	83
41	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	J SILK	NGT 5 50079	83
41	UNIV OF CALIFORNIA - BERKELEY	M LOOMIS	ARC	M HOLT	NCC 2 5218	81
41	UNIV OF CALIFORNIA - BERKELEY	P F WERCINSKI	ARC	G CHAMPMAN	NCC 2 5259	81
41	UNIV OF CALIFORNIA - BERKELEY	P F WERCINSKI	ARC	G T CHAPMAN	NCC 2 5334	81
41	UNIV OF CALIFORNIA - BERKELEY	R DONNELLY	GSFC	S KAHN	NAS 5 31429	80
41	UNIV OF CALIFORNIA - BERKELEY	R R TACINA	GRC	R DIBBLE	NAG 3 2103	72
41	UNIV OF CALIFORNIA - DAVIS	B J BACON	GSFC	R A HESS	NCC 1 345	86
41	UNIV OF CALIFORNIA - DAVIS	B J BACON	LARC	R A HESS	NCC 1 266	86
41	UNIV OF CALIFORNIA - DAVIS	C M FREMAUX	LARC	C P VAN DAM	NAG 1 2006	84
41	UNIV OF CALIFORNIA - DAVIS	D BANKS	DFRC	C P VAN DAM	NCC 4 114	87
41	UNIV OF CALIFORNIA - DAVIS	D BANKS	DFRC	C P VAN DAM	NCC 4 120	88
41	UNIV OF CALIFORNIA - DAVIS	D J KINNEY	ARC	C P VAN DAM	NCC 2 5255	87
41	UNIV OF CALIFORNIA - DAVIS	D KINNEY	ARC	M HAFEZ	NCC 2 5240	87
41	UNIV OF CALIFORNIA - DAVIS	D KWAK	ARC	M HAFEZ	NCC 2 873	86
41	UNIV OF CALIFORNIA - DAVIS	D KWAK	ARC	M HAFEZ	NCC 2 1011	86
41	UNIV OF CALIFORNIA - DAVIS	D KWAK	ARC	M HAFEZ	NCC 2 5229	87
41	UNIV OF CALIFORNIA - DAVIS	D KWAK	ARC	M HAFEZ	NCC 2 5292	87
41	UNIV OF CALIFORNIA - DAVIS	D KWAK	ARC	M HAFEZ	NCC 2 5329	87
41	UNIV OF CALIFORNIA - DAVIS	D TRAN	ARC	R HESS	NCC 2 5238	87
41	UNIV OF CALIFORNIA - DAVIS	E N DUQUE	ARC	C P VANDAM	NCC 2 5308	87
41	UNIV OF CALIFORNIA - DAVIS	J BURKEN	DFRC	R HESS	NCC 4 118	88
41	UNIV OF CALIFORNIA - DAVIS	L S SROUE	ARC	R A HESS	NCC 2 1131	86
41	UNIV OF CALIFORNIA - DAVIS	P A GELHAUSEN	ARC	M M HAFEZ	NCC 2 880	86
41	UNIV OF CALIFORNIA - DAVIS	P A GELHAUSEN	LARC	C P VAN-DAM	NAG 1 2215	84
41	UNIV OF CALIFORNIA - DAVIS	S C SMITH	ARC	J CHATTOT	NCC 2 5201	87
41	UNIV OF CALIFORNIA - IRVINE	J CARTER	DFRC	K MEASE	NAG 4 145	89
41	UNIV OF CALIFORNIA - IRVINE	J CARTER	DFRC	K MEASE	NAG 4 166	89
41	UNIV OF CALIFORNIA - IRVINE	J D HOLDEMAN	GRC	G S SAMUELSEN	NCC 3 412	91
41	UNIV OF CALIFORNIA - IRVINE	J M SEINER	LARC	D PAPAMOSCHOU	NAG 1 2104	89
41	UNIV OF CALIFORNIA - IRVINE	S LA SHERAS	GRC	D PAPAMOSCHOU	NAG 3 1981	89
41	UNIV OF CALIFORNIA - LOS ANGELES	D KWAK	ARC	J B FREUND	NAG 2 1192	92
41	UNIV OF CALIFORNIA - LOS ANGELES	D KWAK	ARC	J B FREUND	NAG 2 1324	92
41	UNIV OF CALIFORNIA - LOS ANGELES	D S DAWICKE	LARC	S N ATLURI	NAG 1 2009	91
41	UNIV OF CALIFORNIA - LOS ANGELES	J CARPENTER	GSFC	J SPEYER	NAG 5 8694	99
41	UNIV OF CALIFORNIA - LOS ANGELES	K GUPTA	SSC	S N ATLURI	NGT 4 52406	101
41	UNIV OF CALIFORNIA - LOS ANGELES	L DUKE	DFRC	S H LEE	NAG 4 119	93
41	UNIV OF CALIFORNIA - SAN DIEGO	D J RASKY	ARC	J R ARNOLD	NGT 2 52237	113
41	UNIV OF CALIFORNIA - SAN DIEGO	S M CASNER	ARC	E L HUTCHINS	NAG 2 1313	103
41	UNIV OF CALIFORNIA - SANTA BARBARA	K GUPTA	SSC	J C BRUCH	NGT 4 52407	119
41	UNIV OF CINCINNATI	G L COLE	GRC	M SAJBEN	NAG 3 2087	424
41	UNIV OF CINCINNATI	H N SWENSON	ARC	G L SLATER	NCC 2 950	424
41	UNIV OF CINCINNATI	J H STARNES, JR.	LARC	G J SIMITSES	NAG 1 2071	424
41	UNIV OF CINCINNATI	J H STARNES	LARC	G J SIMITSES	NAG 1 1280	424
41	UNIV OF CINCINNATI	K W LEWIS	JSC	T W LEWIS	NAG 9 924	424
41	UNIV OF CINCINNATI	P K MCCONNAUGHEY	MSFC	K N GHIA	NGT 8 52801	425

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
41	UNIV OF CINCINNATI	R R TACINA	GRC	S M JENG	NAG 3 1987	424
41	UNIV OF CINCINNATI	T J DAVIS	ARC	G L SLATER	NCC 2 1139	425
41	UNIV OF COLORADO - BOULDER	C PARRA	JSC	L PETERSON	NCC 9 65	146
41	UNIV OF COLORADO - BOULDER	D HOLLAND	HQ	G W MORGENTHAUER	NGT 51297	146
41	UNIV OF COLORADO - BOULDER	D J KATZBERG	LARC	K S CRUMPTON	NGT 1 52139	146
41	UNIV OF COLORADO - BOULDER	G J BRAUKMANN	LARC	R W MILLER	NGT 1 52134	146
41	UNIV OF COLORADO - BOULDER	G SOFFEN	GSFC	G MORGENTHAUER	NGT 5 74	147
41	UNIV OF COLORADO - BOULDER	J GARRISON	GSFC	P AXELRAD	NAG 5 8697	143
41	UNIV OF COLORADO - BOULDER	J H STARNES	LARC	M M MIKULAS	NAG 1 1642	129
41	UNIV OF COLORADO - BOULDER	M D RHODES	LARC	M MUKULAS	NAG 1 1700	130
41	UNIV OF COLORADO - BOULDER	S J KATZBERG	LARC		NAG 1 1927	130
41	UNIV OF COLORADO - BOULDER	S J KATZBERG	LARC	M J ARMATYS	NGT 1 52182	146
41	UNIV OF COLORADO - BOULDER	T L PARROTT	LARC	S BIRINGEN	NAG 1 1864	130
41	UNIV OF FLORIDA	A NURRIDIN	GSFC	H CAMPINS	NGT 5 50021	181
41	UNIV OF FLORIDA	A NURRIDIN	GSFC	S DERMOTT	NGT 5 50031	182
41	UNIV OF FLORIDA	D H RUDY	LARC	R MEI	NAG 1 2092	178
41	UNIV OF FLORIDA	D R AMBUR	LARC	B V SANKAR	NAG 1 2232	179
41	UNIV OF FLORIDA	G H KLOPTER	ARC	R T HAITKA	NAG 2 1179	179
41	UNIV OF FLORIDA	J H STARNES, JR.	LARC	R T HAFTKA	NAG 1 2177	178
41	UNIV OF FLORIDA	J H STARNES	LARC	R T HAFTKA	NAG 1 1669	178
41	UNIV OF FLORIDA	J H STARNES	LARC	R T HAFTKA	NAG 1 2000	178
41	UNIV OF FLORIDA	J M HOUSNER	LARC	A L KURDILA	NAG 1 2060	178
41	UNIV OF FLORIDA	J R CRUZ	LARC	B V SANKAR	NAG 1 1887	178
41	UNIV OF FLORIDA	K C WU	LARC	R T HAFTKA	NCC 1 268	181
41	UNIV OF FLORIDA	R R ANTELIFF	LARC	M SHEPLAK	NAG 1 2133	178
41	UNIV OF FLORIDA	T F JOHNSON	LARC	R T HAFTKA	NAG 1 2110	178
41	UNIV OF FLORIDA	W A SILVA	LARC	A J KURDILA	NAG 1 2198	178
41	UNIV OF HAWAII AT MANOA - HONOLULU	J M HOUSNER	LARC	H R RIGGS	NAG 1 1850	198
41	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D N ANDERSON	GRC	M B BRAGG	NAG 3 1988	218
41	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	E R MCFARLAND	GRC	K D LEE	NAG 3 1983	218
41	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	F SZOFRA	MSFC	T E MORTLAND	NGT 8 52827	223
41	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	H E ADDY	GRC	D B BRAGG	NAG 3 2271	219
41	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	H E ADDY, JR.	GRC	M S SELIG	NCC 3 509	222
41	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	T B IRVINE	GRC	E LOTH	NAS 3 97011	222
41	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	T H BOND	GRC	M B BRAGG	NAG 3 2135	218
41	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	T H BOND	GRC	M BRAGG	NCA 3 110	222
41	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	Y K CHOO	GRC	K D LEE	NAG 3 2236	219
41	UNIV OF KANSAS	J M BRANDON	LARC	C E LAN	NAG 1 1821	237
41	UNIV OF KANSAS	M MEYER	GRC	R TAGHAVI	NGT 3 52361	239
41	UNIV OF KANSAS	R J SILCOX	LARC	T W LIM	NAG 1 1735	237
41	UNIV OF KENTUCKY	D E ASHPIS	GRC	G HUANG	NCC 3 590	241
41	UNIV OF KENTUCKY	D E ASHPIS	GRC	P G HVANG	NAG 3 2099	240
41	UNIV OF KENTUCKY	D E ASHPIS	GRC	P G HUANG	NAG 3 2018	240
41	UNIV OF KENTUCKY	M G GILBERT	LARC	K D DIPPERY	NGT 1 52146	241
41	UNIV OF LOUISVILLE	J M HOUSNER	LARC	H G SCHAEFFER	NCC 1 261	241
41	UNIV OF MARYLAND - COLLEGE PARK	A NURRIDIN	HQ	A HEARN	NGT 5 50083	277
41	UNIV OF MARYLAND - COLLEGE PARK	C L STREETT	LARC	U PIOMELI	NAG 1 1828	260
41	UNIV OF MARYLAND - COLLEGE PARK	D M BUSHNELL	LARC	J D ANDERSON	NAG 1 1730	260
41	UNIV OF MARYLAND - COLLEGE PARK	J L THOMAS	LARC	U PIOMELLI	NAG 1 1880	260
41	UNIV OF MARYLAND - COLLEGE PARK	K Q NGYUEN	ARC	I CHOPRA	NGT 2 52214	277
41	UNIV OF MARYLAND - COLLEGE PARK	K S BRENTNER	LARC	J D BAEDER	NAG 1 1655	260
41	UNIV OF MARYLAND - COLLEGE PARK	M B TISCHER	ARC	R CELI	NAG 2 1231	261
41	UNIV OF MARYLAND - COLLEGE PARK	M B TISCHER	ARC	W S LEVINE	NAG 2 1122	261
41	UNIV OF MARYLAND - COLLEGE PARK	M B TISCHER	ARC	W S LEVINE	NAG 2 1311	261
41	UNIV OF MARYLAND - COLLEGE PARK	P KOLODZIEJ	ARC	M J LEWIS	NCC 2 1129	275
41	UNIV OF MARYLAND - COLLEGE PARK	R D JOSLIN	LARC	U PIOMELLI	NAG 1 1882	260
41	UNIV OF MARYLAND - COLLEGE PARK	S R THOMAS	GRC	M J LEWIS	NAG 3 2106	261
41	UNIV OF MARYLAND - COLLEGE PARK	T M SANDERS	GRC	A K GUPTA	NAG 3 1488	261
41	UNIV OF MARYLAND - COLLEGE PARK	T STENGLE	GSFC	W FOURNEY	NAS 5 99211	274
41	UNIV OF MARYLAND - COLLEGE PARK	W G WARMBRODT	ARC	I CHOPRA	NAG 2 1329	261
41	UNIV OF MARYLAND - COLLEGE PARK	W G WARMBRODT	ARC	I CHOPRA	NCC 2 829	274
41	UNIV OF MARYLAND - COLLEGE PARK	Y H YU	ARC	I CHOPRA	NCC 2 944	274
41	UNIV OF MICHIGAN - ANN ARBOR	G SOFFEN	GSFC	K POWELL	NGT 5 75	324
41	UNIV OF MICHIGAN - ANN ARBOR	K K GUPTA	DFRC	D BERNSTEIN	NGT 4 52404	324
41	UNIV OF MISSISSIPPI - UNIV	A JOYCE	SSC	P SUKANEK	NGT13 52705	335
41	UNIV OF MISSOURI - ROLLA	C C WEY	GRC	P D WHITEFIELD	NAG 3 2185	337

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
41	UNIV OF MISSOURI - ROLLA	C C WEY	GRC	P D WHITEFIELD	NAG 3 2186	337
41	UNIV OF MISSOURI - ROLLA	C R MCCLINTON	LARC	D W RIGGINS	NAG 1 2167	336
41	UNIV OF MISSOURI - ROLLA	E ENVIA	GRC	W EVERSMAN	NAG 3 2109	337
41	UNIV OF NEW MEXICO-ALBUQUERQUE	R D JOSLIN	LARC	C R TRUMAN	NAG 1 2018	367
41	UNIV OF NEW ORLEANS	A JOYCE	JSC	E RUSSO	NGT13 52711	247
41	UNIV OF NEW ORLEANS	A JOYCE	SSC	Y TRAYHAM	NGT13 52719	247
41	UNIV OF NEW ORLEANS	D JOYCE	SSC	D PURI	NGT13 52706	246
41	UNIV OF NOTRE DAME	J B ANDERS	LARC	F O THOMAS	NAG 1 1878	229
41	UNIV OF NOTRE DAME	J B ANDERS	LARC	F O THOMAS	NAG 1 1987	229
41	UNIV OF NOTRE DAME	J B ANDERS	LARC	F O THOMAS	NAG 1 2179	229
41	UNIV OF NOTRE DAME	J C ROSS	ARC	F O THOMAS	NCC 2 1014	230
41	UNIV OF NOTRE DAME	J H STARNES, JR.	LARC	E CORONA	NAG 1 2214	229
41	UNIV OF NOTRE DAME	J H STARNES	LARC	E CORONA	NAG 1 2032	229
41	UNIV OF NOTRE DAME	J SORIESKI	LARC	J E RENAUD	NAG 1 1561	229
41	UNIV OF OKLAHOMA - NORMAN	R J GUNDERMAN	GRC	R K CRANE	NAS 3 26957	431
41	UNIV OF PITTSBURGH	G C HORNER	LARC	W CLARK	NGT 1 52188	454
41	UNIV OF PITTSBURGH	G C HORNER	LARC	W W CLARK	NGT 1 52186	454
41	UNIV OF PUERTO RICO - MAYAGUEZ	R A KING	LARC	J B DAVILA-ACRON	NCC 1 257	557
41	UNIV OF QUEENSLAND	A H AUSLENDER	LARC	A PAULL	NAG 1 2113	558
41	UNIV OF QUEENSLAND	R C ROGERS	LARC	R G MORGAN	NAG 1 1846	558
41	UNIV OF RHODE ISLAND	J LEI	GRC	O GREGORY	NAG 3 2208	458
41	UNIV OF ROME	T B BATSKI	LARC	F GRASSO	NAG 1 2076	559
41	UNIV OF SOUTH ALABAMA	F H PROCTOR	LARC	Z C ZHENG	NAG 1 1911	20
41	UNIV OF SOUTH CAROLINA-COLUMBIA	J C NEWMAN, JR.	LARC	M A SUTTON	NGT 1 52128	463
41	UNIV OF SOUTH FLORIDA	J A DIGGS	KSC	R E HENNING	NAG10 204	185
41	UNIV OF SOUTHERN CALIFORNIA	B L BERRIER	LARC	R F BLACKWELDER	NCC 1 276	125
41	UNIV OF SOUTHERN CALIFORNIA	J R CURZ	LARC	P B LISSAMAN	NAG 1 1996	123
41	UNIV OF SOUTHERN COLORADO	A E MOTLEY	LARC	L M GARRETT	NGT 1 52209	151
41	UNIV OF TENNESSEE - KNOXVILLE	E ENVIA	GRC	J E CARUTHERS	NAG 3 2068	467
41	UNIV OF TENNESSEE - KNOXVILLE	F CARDONNA	ARC	J STEINHOFF	NCC 2 5265	469
41	UNIV OF TENNESSEE - KNOXVILLE	S P WILKINSON	LARC	J R ROTH	NCC 1 223	469
41	UNIV OF TEXAS - AUSTIN	A NURRIDIN	HQ	ROUX	NGT 5 50099	497
41	UNIV OF TEXAS - AUSTIN	D G SICKOREZ	JSC	R H BISHOP	NGT 9 35	497
41	UNIV OF TEXAS - AUSTIN	D G SICKOREZ	JSC	W T FOWLER	NAG 9 996	495
41	UNIV OF TEXAS - AUSTIN	F E LUMPKIN	JSC	D B GOLDSTEIN	NAG 9 991	495
41	UNIV OF TEXAS - AUSTIN	M S BURRELL	GSFC	R NEREM	NGT 5 72	497
41	UNIV OF TEXAS - AUSTIN	R CARPENTER	JSC	B D TAPLEY	NAS 9 97045	496
41	UNIV OF TEXAS - AUSTIN	R D BRAUM	LARC	D GARZA	NGT 1 52147	496
41	UNIV OF TEXAS - AUSTIN	T S GRITES	LARC	K LIECHTI	NCC 1 303	496
41	UNIV OF TEXAS - EL PASO	A R ROCHA	JSC	C FERREGUT	NAG 9 1099	499
41	UNIV OF TEXAS AT BROWNSVILLE	G E MOSIER	GSFC	Z L XU	NAG 5 2210	500
41	UNIV OF TEXAS AT SAN ANTONIO	C C CHAMIS	GRC	L BOYCE	NAG 3 2060	500
41	UNIV OF TEXAS AT SAN ANTONIO	D G SICKOREZ	JSC	A KARIMI	NAG 9 982	500
41	UNIV OF TOLEDO	A KURKOV	GRC	T G KEITH	NAG 3 1803	426
41	UNIV OF TOLEDO	A P KURKOR	GRC	J G KEITH	NCC 3 604	429
41	UNIV OF TOLEDO	D JANETZKE	GRC	T G KEITH	NCC 3 596	428
41	UNIV OF TOLEDO	G J FOLLEN	GRC	A A AFEH	NAG 3 2264	427
41	UNIV OF TOLEDO	G J FOLLEN	GRC	A AFJENT	NAG 3 1750	426
41	UNIV OF TOLEDO	O MEHMED	GRC	T KEITH	NCC 3 605	429
41	UNIV OF TOLEDO	R LIND	DFRC	J D JOHNSON	NAG 4 168	427
41	UNIV OF TOLEDO	R STUBBS	GRC	T G KEITH	NCC 3 523	428
41	UNIV OF VIRGINIA	A NURRIDIN	HQ	J FRENCH	NGT 5 50062	527
41	UNIV OF VIRGINIA	B R HANKS	LARC	H N WADLEY	NAG 1 1962	521
41	UNIV OF VIRGINIA	C E GLASS	LARC	J C MCDANIEL	NAG 1 2120	521
41	UNIV OF VIRGINIA	C HGERHOLD	LARC	W E ZORUMSKI	NAG 1 2004	521
41	UNIV OF VIRGINIA	C MOORE	LARC	H N WADLEY	NAG 1 1964	521
41	UNIV OF VIRGINIA	C V ECKSTROM	LARC	G L CAHEN	NAS 1 20301	525
41	UNIV OF VIRGINIA	D E REUBUSH	LARC	J C MCDANIEL	NAG 1 2085	521
41	UNIV OF VIRGINIA	D E REUBUSH	LARC	J C MCDANIEL	NAG 1 2131	521
41	UNIV OF VIRGINIA	J H STARNES	LARC	A K NOOR	NAG 1 2016	521
41	UNIV OF VIRGINIA	J H STARNES	LARC	C O HORGAN	NAG 1 2031	521
41	UNIV OF VIRGINIA	J MALONE	LARC	A K NOORE	NCC 1 263	526
41	UNIV OF VIRGINIA	S ARNOLD	GRC	M PINDERG	NAS 3 97190	525
41	UNIV OF VIRGINIA	S E MASSENBERG	LARC	D CHESTNUTT	NCC 1 237	525
41	UNIV OF VIRGINIA	S J SCOTTI	LARC	E A THORNTON	NAG 1 1678	521
41	UNIV OF VIRGINIA	S M ARNOLD	GRC	M J PINDERA	NAG 3 2252	522

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
41	UNIV OF VIRGINIA	S M JOSHI	LARC	G TAO	NCC 1 342	526
41	UNIV OF WAIKATO	N AVAILABLE	ARC	N AVAILABLE	NAG 2 1168	559
41	UNIV OF WALES	K K GUPTA	ARC	O C ZIENKIEWICZ	NAGW 2127	558
41	UNIV OF WASHINGTON	D E ECKHARDT	LARC	N G LEVESON	NAG 1 2020	533
41	UNIV OF WASHINGTON	D O'NEIL	MSFC	M E CAMPBELL	NAG 8 1602	539
41	UNIV OF WASHINGTON	F S SHIPMAN	LARC	N G LEVENSON	NAG 1 1894	533
41	UNIV OF WASHINGTON	G P GURUSWAMY	ARC	E LIVNE	NCC 2 5243	540
41	UNIV OF WASHINGTON	G SKOCH	GRC	J J KELLER	NAG 3 1595	533
41	UNIV OF WASHINGTON	W J STROUD	LARC	K Y LIN	NAG 1 2055	533
41	UNIV OF WEST FLORIDA	R J SHIVELY	ARC	N SURI	NAG 2 1226	186
41	UNIV OF WEST FLORIDA	W K GERDEN	LARC	A K RAV	NAG 1 2236	186
41	UNIV OF WYOMING	D M DRIVER	ARC	J W NAUGHTON	NCC 2 5315	556
41	UNIV OF WYOMING	S WHITMORE	DFRC	J NAUGHTON	NAG 4 167	555
41	UTAH STATE UNIV	T B GATSKI	LARC	A E ANDERSON	NAG 1 1999	503
41	UTAH STATE UNIV	T B GATSKI	LARC	D SPALL	NAG 1 1871	503
41	VA POLYTECH INST & ST UNIV	A OWEN	GRC	W F O	NAG 3 2184	529
41	VA POLYTECH INST & ST UNIV	C H GERHOLD	LARC	R A BURDISO	NAG 1 1980	528
41	VA POLYTECH INST & ST UNIV	C H GERHOLD	LARC	R A BURDISO	NAG 1 2001	528
41	VA POLYTECH INST & ST UNIV	C H GERHOLD	LARC	R A BURDISO	NAG 1 2137	529
41	VA POLYTECH INST & ST UNIV	C L BURLEY	LARC	W J DEVENPORT	NAG 1 1942	528
41	VA POLYTECH INST & ST UNIV	G H KLOPTER	ARC	B GROSSMAN	NAG 2 1180	529
41	VA POLYTECH INST & ST UNIV	H C LESTER	LARC	C R FULLER	NAG 1 1681	527
41	VA POLYTECH INST & ST UNIV	J B DAVIDSON	LARC	W C DURHAM	NAG 1 2246	529
41	VA POLYTECH INST & ST UNIV	J C STALER	ARC	M R ANDERSON	NAG 2 1292	529
41	VA POLYTECH INST & ST UNIV	J H STAMES	LARC	M W HYER	NAG 1 1895	528
41	VA POLYTECH INST & ST UNIV	J H STARNES, JR.	LARC	M W HYER	NGT 1 52112	531
41	VA POLYTECH INST & ST UNIV	J H STARNES, JR.	LARC	Z GURDAL	NAG 1 2116	529
41	VA POLYTECH INST & ST UNIV	J H STARNES, JR.	LARC	E R JOHNSON	NAG 1 537	527
41	VA POLYTECH INST & ST UNIV	J H STARNES	LARC	E R JOHNSON	NAG 1 2035	528
41	VA POLYTECH INST & ST UNIV	J H STARNES	LARC	Z GURDAL	NAG 1 643	527
41	VA POLYTECH INST & ST UNIV	J V FOSTER	LARC	F H LUTZE	NAG 1 1851	527
41	VA POLYTECH INST & ST UNIV	J V FOSTER	LARC	W C DURHAM	NAG 1 1449	527
41	VA POLYTECH INST & ST UNIV	J V FOSTER	LARC	W C DURHAM	NAG 1 2111	529
41	VA POLYTECH INST & ST UNIV	J W POSER	LARC	W J DEVENPORT	NAG 1 1801	527
41	VA POLYTECH INST & ST UNIV	K J DARYABEIGI	LARC	E P SCOTT	NCC 1 221	530
41	VA POLYTECH INST & ST UNIV	M D MOORE	LARC	B GROSSMAN	NAG 1 2217	529
41	VA POLYTECH INST & ST UNIV	M R WAZAK	LARC	L MEIROVITCH	NCC 1 346	530
41	VA POLYTECH INST & ST UNIV	P A NEWMAN	LARC	B GROSSMAN	NAG 1 1562	527
41	VA POLYTECH INST & ST UNIV	P H MIRICK	LARC	D J INMAN	NAG 1 1998	528
41	VA POLYTECH INST & ST UNIV	R P WOODWARD	GRC	W F NG	NAG 3 2061	529
41	VA POLYTECH INST & ST UNIV	R P WOODWARD	GRC	W NG	NAG 3 2191	529
41	VA POLYTECH INST & ST UNIV	R P WOODWARD	GRC	W NG	NAG 3 2194	530
41	VA POLYTECH INST & ST UNIV	R WLEZIEN	LARC	J A SCHETZ	NAG 1 1682	527
41	VA POLYTECH INST & ST UNIV	S A GORTON	LARC	R W BARNWELL	NCC 1 245	530
41	VA POLYTECH INST & ST UNIV	S B GRAFTON	LARC	F H LUTZE	NAG 1 1737	527
41	VA POLYTECH INST & ST UNIV	S C ASBURY	LARC	B CROSSMAN	NAG 1 1852	527
41	VA POLYTECH INST & ST UNIV	T BUI	DFRC	J A SCHETZ	NAG 4 141	530
41	VA POLYTECH INST & ST UNIV	T BUI	DFRC	J A SCHETZ	NAG 4 158	530
41	VA POLYTECH INST & ST UNIV	T L PARROTT	LARC	R H THOMAS	NCC 1 344	530
41	VA POLYTECH INST & ST UNIV	W K ANDERSON	LARC	B GROSSMAN	NCC 1 279	530
41	VANDERBILT UNIV	J DOWDY	MSFC	S MAHADEVAN	NGT 8 52868	471
41	VANDERBILT UNIV	R G SEASHOLTZ	GRC	R W PITZ	NAG 3 1984	469
41	VIRGINIA COMMONWEALTH UNIV	D E ASHPIS	GRC	D J DORNEY	NCC 3 645	532
41	WASHINGTON STATE UNIV	R A KENNELLY	ARC	D WESTPHAL	NCC 2 5182	543
41	WASHINGTON UNIV - ST	A NURRIDIN	GSFC	SPOSATO	NGT 5 50023	341
41	WASHINGTON UNIV - ST	A NURRIDIN	GSFC	W B MCKINNON	NGT 5 50063	341
41	WASHINGTON UNIV - ST	B MERRITT	GSFC	P HINK	NAG 5 5215	339
41	WAYNE STATE UNIV	L MAESTRELLO	LARC	P L CHOW	NAG 1 1175	325
41	WAYNE STATE UNIV	P C JORGENSEN	GRC	S T YU	NCC 3 580	325
41	WEST VIRGINIA UNIV	A H BOWERS	ARC	M R NAPOLITANO	NCC 2 759	544
41	WEST VIRGINIA UNIV	J F MEYERS	LARC	J M KUHLMAN	NAG 1 2132	543
41	WEST VIRGINIA UNIV	W F BROOKS	ARC	M R NAPOLITANO	NAG 2 1158	544
41	WESTERN MICHIGAN UNIV	R D JOSLIN	LARC	W W LIOU	NAG 1 1979	325
41	WICHITA STATE UNIV	C S BIDWELL	GRC	M PAPADAKIS	NAG 3 1985	239
41	WICHITA STATE UNIV	T H BOND	GRC	D ELLIS	NAG 3 2137	239
41	WICHITA STATE UNIV	T H BOND	GRC	D ELLIS	NCA 3 111	239

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
41	WICHITA STATE UNIV	T P RATVASKY	GRC	M PAPADAKIS	NCC 3 624	240
41	WICHITA STATE UNIV	W E RICKS	LARC	H WILLIFORD	NCA 1 106	239
41	YALE UNIV	A NURRIDIN	HQ	DANIEL	NGT 5 50082	155
41	YALE UNIV	A NURRIDIN	HQ	K GIBBLE	NGT 5 50067	155
42	AUBURN UNIV	F M BUGG	MSFC	M A CRUTCHINS	NAG 8 1562	3
42	AUBURN UNIV	W A ORAN	HQ	R ASKEW	NAGW 1192	3
42	BOSTON UNIV	L CHRISTENSEN	GSFC	T FRITZ	NAG 5 6926	282
42	CENTRAL STATE UNIV - OHIO	D E LACY	GRC	C B OKHIO	NAG 3 1517	412
42	CORNELL UNIV	B D REED	GRC	I D BOYD	NAG 3 1958	379
42	FLORIDA A&M UNIV	R P WOODWARD	GRC	A KROTHAPALLI	NAG 3 2056	169
42	FLORIDA INST OF TECH	D HOLLAND	HQ	T D OSWALT	NGT 51086	172
42	GEORGE WASHINGTON UNIV	L F ROWELL	LARC	R H TOLSON	NCC 1 104	159
42	GEORGE WASHINGTON UNIV	R W BUCHAN	LARC	R H TOLSON	NCC 1 331	159
42	GEORGE WASHINGTON UNIV	T E HUBER	GSFC	G FRIEDER	NCC 5 51	160
42	GEORGIA INST OF TECH	R A LEPSCH	LARC	J R OLDS	NCC 1 229	192
42	IOWA STATE UNIV	J M HANSON	MSFC	P LU	NAG 8 1289	232
42	IOWA STATE UNIV	M A WOODARD	GSFC	J A DICKERSON	NAG 5 3918	231
42	JOHNS HOPKINS UNIV	C KREBS	GSFC	D FORD	NAS 5 32865	259
42	JOHNS HOPKINS UNIV	G H MUCKLOW	GSFC	P A STADTER	NAG 5 8665	257
42	JOHNS HOPKINS UNIV	J BREDEDAMP	GSFC	A S SZALAY	NAG 5 8347	256
42	JOHNS HOPKINS UNIV	J DAVILA	GSFC	D M RUST	NAG 5 4399	252
42	MASSACHUSETTS INST OF TECH	G MOSIER	GSFC	D W MILLER	NAG 5 7839	301
42	MASSACHUSETTS INST OF TECH	L G CLARK	LARC	E CROWLEY	NAS 1 18690	303
42	MASSACHUSETTS INST OF TECH	S J SCHNEIDER	GRC	A H EPSTEIN	NAG 3 1937	293
42	MOREHOUSE SCH MED	L PUTCHA	JSC	D POTTER	NAG 9 971	196
42	NORTH CAROLINA A&T STATE UNIV	J JUANG	LARC	M A WALDEN	NGT 1 52119	402
42	NORTH CAROLINA A&T STATE UNIV	S E WOODARD	LARC	F VAINSTEIN	NGT 1 52178	402
42	NORTH CAROLINA STATE UNIV	E M QUEEN	LARC	G O WALBERG	NAG 1 2222	403
42	NORTH CAROLINA STATE UNIV	R D BRAUN	LARC	G D WALBERG	NAG 1 2086	403
42	OHIO STATE UNIV	C H WILLIAMS	GRC	P J TURCHI	NAG 3 2202	417
42	PENN STATE UNIV	R DONNELLY	GSFC	F CORDORA	NAS 5 31787	448
42	PRINCETON UNIV	P G MAGHAMI	LARC	M O PHAN	NAG 1 1843	356
42	PURDUE UNIV	G A SOFFEN	GSFC	K C HOWELL	NGT 5 28	228
42	PURDUE UNIV	K GALAL	NMO	D C HOWELL	NCC 7 5	228
42	SAINT MARY	J DOWDY	MSFC	R MORAS	NGT 8 52875	477
42	STANFORD UNIV	D G SICKOREZ	JSC	J HOW	NGT 9 28	70
42	STANFORD UNIV	G BRIGGS	ARC	B LUSIGNAN	NCC 2 5163	68
42	STANFORD UNIV	J CROFT	GSFC	J P HOW	NAG 5 6233	64
42	STANFORD UNIV	M H SIMS	ARC	R H CANNON	NCC 2 333	67
42	TEXAS A&M UNIV	D L CARTER	MSFC	F R BEST	NCC 8 177	482
42	TEXAS A&M UNIV	E M BRADEN	JSC	S R VACLALIC	NAG 9 1086	481
42	TEXAS A&M UNIV	J JUANG	LARC	T C POLLOCK	NAG 1 1950	478
42	TEXAS A&M UNIV	J W BELL	JSC	J L CRASSIDIS	NAG 9 1077	481
42	TEXAS A&M UNIV	T PENDLETON	JSC	D A VOLZ	NAG 9 893	480
42	THE CATHOLIC UNIV OF AMERICA	G LIGHTSEY	GSFC	D CRASSIDIS	NAG 5 7130	164
42	TUSKEGEE UNIV	K NORLIN	DFRC	S F ALI	NAG 4 133	5
42	UNIV HOUSTON-HOUSTON	J JUANG	LARC	W CHU	NAG 1 1916	484
42	UNIV OF MINN	D R OLYNICK	ARC	G V CANDLER	NAG 2 1125	326
42	UNIV OF MINN	D WEST	GSFC	R HUMPHREYS	NAS 5 32670	329
42	UNIV OF MINN	K B LIM	LARC	G J BALAS	NCC 1 247	330
42	UNIV OF ALABAMA - HUNTSVILLE	C C LAPENTA	MSFC	S J GRAVES	NCC 8 180	17
42	UNIV OF ALABAMA - HUNTSVILLE	D C ALHORN	MSFC	R D HAMPTON	NAG 8 1598	15
42	UNIV OF ARIZONA	S BAIRD	JSC	K R SRIDHAR	NAS 9 97224	40
42	UNIV OF CALIFORNIA - DAVIS	K A LABEL	GSFC	D CASTANEDA	NAS 5 32959	86
42	UNIV OF COLORADO - BOULDER	G HUNOLT	GSFC	R G BARRY	NAS 5 32392	145
42	UNIV OF COLORADO - BOULDER	G SMITH	GSFC	G BORN	NAG 5 7611	141
42	UNIV OF COLORADO - BOULDER	M S LAKE	LARC	L D PETERSON	NCC 1 281	145
42	UNIV OF COLORADO - BOULDER	M S LAKE	LARC	M M MIKULAS	NAG 1 2068	130
42	UNIV OF COLORADO - BOULDER	V GRIFFIN	GSFC	G ROTTMAN	NAS 5 97045	145
42	UNIV OF DENVER	G D OLSEN	MSFC	J E WILLIAMSEN	NCC 8 176	151
42	UNIV OF FLORIDA	C J CAMARDA	LARC	R T HAFTKA	NAG 1 1808	178
42	UNIV OF FLORIDA	J POE	MSFC	J R THORNTON	NAS 8 97110	181
42	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D G SICKOREZ	JSC	S R WHITE	NGT 9 33	223
42	UNIV OF KENTUCKY	B EMRICH	MSFC	J MAIN	NAG 8 1317	241
42	UNIV OF MARYLAND - COLLEGE PARK	D LAVERY	HQ	D L AKIN	NCCW 80	276
42	UNIV OF MARYLAND - COLLEGE PARK	D WEIDOW	GSFC	D SCHMIDT	NAG 5 4809	265

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
42	UNIV OF MARYLAND - COLLEGE PARK	G ASRAR	GSFC	T MEAD	NGT 5 60	277
42	UNIV OF MARYLAND - COLLEGE PARK	M RHEE	GSFC	M J LEWIS	NAG 5 8583	272
42	UNIV OF MARYLAND - COLLEGE PARK	P L CROUSE	GSFC	D K SCHMIDT	NCC 5 85	275
42	UNIV OF MASSACHUSETTS - AMHERST	D NAVA	HQ	J GOLDSTEIN	NAGW 4514	310
42	UNIV OF MICHIGAN - ANN ARBOR	F R CHANG-DIAZ	JSC	B E GILCHRIST	NAG 9 1167	321
42	UNIV OF MICHIGAN - ANN ARBOR	J L BALATICE	MSFC	B GILCHRIST	NAS 8 99128	323
42	UNIV OF MICHIGAN - ANN ARBOR	L CURTIS	MSFC	B E GILCHRIST	NAG 8 1612	321
42	UNIV OF MICHIGAN - ANN ARBOR	M CASTLEMAN	MSFC	B E GILCHRIST	NAS 8 99127	322
42	UNIV OF MISSOURI - COLUMBIA	C LIU	JSC	S NAIR	NAG 9 915	336
42	UNIV OF SOUTHERN CALIFORNIA	C CASTELLANO	ARC	G BEKEY	NAS 8 97115	125
42	UNIV OF TENNESSEE - KNOXVILLE	M M MUNK	LARC	J E LYNE	NAG 1 2163	467
42	UNIV OF TENNESSEE - KNOXVILLE	T A TALAY	LARC	B R STARR	NGT 1 52218	469
42	UNIV OF TEXAS - AUSTIN	F E LUMPKIN	JSC	D B GOLDSTEIN	NAG 9 1117	495
42	UNIV OF TEXAS - AUSTIN	G C BLACKBURN	JSC	G E LIGHTSEY	NAG 9 1124	495
42	UNIV OF TEXAS - AUSTIN	J D WAGENKNECHT	JSC	R H BISHOP	NAG 9 1075	495
42	UNIV OF TEXAS - AUSTIN	J T CHLADEK	JSC	D TESAR	NAG 9 809	494
42	UNIV OF TEXAS - AUSTIN	J W BELL	JSC	R H BISHOP	NAG 9 1076	495
42	UNIV OF VIRGINIA	M D RHODES	LARC	E A THORNTON	NGT 1 52110	526
42	UNIV OF WISCONSIN - MADISON	G MUCKLOW	GSFC	J W PERCIVAL	NAG 5 8588	551
42	UNIV OF WISCONSIN - MADISON	J D DAGEN	JSC	D C KAMMER	NAG 9 953	551
42	UNIV OF WISCONSIN - MADISON	R SPAGNUOLO	GSFC	J W PERCIVAL	NAG 5 7026	549
42	UNIV OF WISCONSIN - MADISON	S J LAMBING	MSFC	N A DUFFIE	NCC 8 129	553
42	UTAH STATE UNIV	M D VANEK	LARC	J ULWICK	NAS 1 20467	504
42	UTAH STATE UNIV	R LAKE	MSFC	R W SCHUNK	NAS 8 37110	504
42	VA POLYTECH INST & ST UNIV	C J CAMARDA	LARC	L LIBRESCU	NAG 1 1689	527
42	VA POLYTECH INST & ST UNIV	D C FOLTA	GSFC	C D HALL	NAG 5 7657	530
42	WORCESTER POLYTECH INST	E J PENCIL	GRC	D A GATSOMIS	NAG 3 1873	312
43	AUBURN UNIV	D BRITTON	GRC	B K TATARCHUK	NAG 3 2142	3
43	CALIFORNIA INST OF TECH	G A ZIMMERK	GRC	G T SMEDLEY	NAS 3 27263	49
43	CASE WESTERN RESERVE UNIV	G W HUNTER	GRC	C C LIU	NCC 3 574	411
43	CASE WESTERN RESERVE UNIV	G W HUNTER	GRC	C C LIU	NCC 3 612	411
43	CASE WESTERN RESERVE UNIV	G W HUNTER	GRC	C C LIU	NCC 3 706	412
43	CASE WESTERN RESERVE UNIV	G W HUNTER	GRC	C LUI	NCC 3 679	412
43	CLARK ATLANTA UNIV	R LAWRENCE	GRC	D OKHIO	NAG 3 2292	187
43	CLEVELAND STATE UNIV	W MORALES	GRC	D E GATICA	NCC 3 657	415
43	CLEVELAND STATE UNIV	W MORALES	GRC	D W BALL	NCC 3 644	415
43	COLORADO SCH OF MINES	R FRIEDMAN	GRC	J T MCKINNON	NAG 3 1628	126
43	CORNELL UNIV	B S SINGH	GRC	P H STEEN	NAG 3 1854	379
43	CORNELL UNIV	D MONTEGANI	GRC	D STEEN	NGT 3 52318	385
43	FLORIDA A&M UNIV	A JOYCE	SSC	S PANCHOLY	NAG13 43	170
43	FLORIDA STATE UNIV	P H RHODES	MSFC	B R LOCKE	NAG 8 1163	175
43	HAMPTON UNIV	G B NORTHAM	LARC	J F AKYURTLU	NAG 1 1636	510
43	HOWARD UNIV	H L BELVIN	LARC	W E COLLINS	NAG 1 2019	160
43	JOHNS HOPKINS UNIV	B S SINGH	GRC	K J STEBE	NAG 3 1923	250
43	JOHNS HOPKINS UNIV	B SINGH	GRC	M E PAULATIS	NAG 3 1954	250
43	JOHNS HOPKINS UNIV	D GLASCO	HQ	D SALTZMAN	NGT 51413	259
43	NORTH CAROLINA A&T STATE UNIV	G ALLEN	KSC	G WHITE	NAG10 201	402
43	NORTHWESTERN UNIV	S A GOKOGLU	GRC	B J MATKOWSKY	NAG 3 1608	208
43	POLYTECH UNIV - BROOKLYN	C TALLEY	MSFC	A S MEYERSON	NAG 8 1455	387
43	PRAIRIE VIEW A&M UNIV	A BEAM	MSFC	Z HAQUE	NAG 8 1644	473
43	PRINCETON UNIV	G A LESANE	HQ	D A SAVILLE	NGT 51343	359
43	SOUTHERN UNIV & A&M COLLEGE	A J HATCH	ARC	S K TRIVEDI	NAG 2 1015	244
43	SYRACUSE UNIV	C K GARY	ARC	A S SANGANI	NAG 3 1853	395
43	THE UNIV OF CENTRAL FLORIDA	J RYAN	KSC	C A CLAUSEN	NAG10 162	176
43	TUSKEGEE UNIV	M COLLINS	KSC	N VAHDAT	NAG10 253	6
43	TUSKEGEE UNIV	P FAUGHNAN	KSC	N VAHDAT	NAG10 167	5
43	UNIV HOUSTON-HOUSTON	D MONTEGANI	GRC	V BALAKOTAIH	NGT 3 52314	486
43	UNIV OF CALIFORNIA - DAVIS	F P CHIARAMONTE	GRC	B L POWELL	NAG 3 2153	85
43	UNIV OF CALIFORNIA - SANTA BARBARA	B S SINGH	GRC	L G LEAL	NAG 3 2115	115
43	UNIV OF CALIFORNIA - SANTA BARBARA	B S SINGH	GRC	L LEAL	NAG 3 1896	114
43	UNIV OF CALIFORNIA - SANTA BARBARA	D MONTEGANI	GRC	S BANERJEE	NGT 3 52317	119
43	UNIV OF CINCINNATI	T R BRUNEEL	HQ	L P COOPER	NGT 10031	425
43	UNIV OF COLORADO - BOULDER	B S SINGH	GRC	R H DAVIS	NAG 3 2116	131
43	UNIV OF COLORADO - BOULDER	L SHAW	GRC	R H DAVIS	NGT 3 52306	147
43	UNIV OF DELAWARE	B S SINGH	GRC	E W KALER	NAG 3 1955	155
43	UNIV OF FLORIDA	D MONTEGANI	HQ	R NARAYANAN	NGT 3 52320	181

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
43	UNIV OF FLORIDA	G LESANE	HQ	R NARAYARAN	NGT 51695	181
43	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	F J MONTEGANI	GRC	J S MOORE	NGT 3 52345	222
43	UNIV OF NEW MEXICO-ALBUQUERQUE	R LAWRENCE	GSFC	G WARD	NGT 5 90050	369
43	UNIV OF PENNSYLVANIA	A NURRIDIN	HQ	D A HAMMER	NGT 5 50210	452
43	UNIV OF PENNSYLVANIA	D GRIFFIN	GRC	D A HAMMER	NAG 3 2111	451
43	UNIV OF RHODE ISLAND	M M WEISLOGEL	GRC	A BOSE	NAG 3 2129	458
43	UNIV OF TOLEDO	J FISHER	ARC	M ABRAHAM	NCC 2 5215	428
43	UNIV OF VIRGINIA	J E FINN	ARC	M D LEVAN	NGT 2 52203	526
43	VA POLYTECH INST & ST UNIV	R LAWRENCE	GSFC	J NOTTINGHAM	NGT 5 90011	531
43	VANDERBILT UNIV	A NURRIDIN	HQ	R BAYUZICK	NGT 5 50209	471
43	VANDERBILT UNIV	J E FINN	ARC	M D LEVAN	NCC 2 992	470
43	VANDERBILT UNIV	J E FINN	ARC	M D LEVAN	NCC 2 1127	470
43	WASHINGTON UNIV - ST	F MONTEGANI	GRC	W BUHRO	NGT 3 52313	341
43	YALE UNIV	B S SINGH	GRC	D E ROSNER	NAG 3 1951	153
43	YALE UNIV	B SINGH	GRC	M LOEWENBERG	NAG 3 1935	153
43	YALE UNIV	F MONTEGANI	GRC	M LOEWENBERG	NGT 3 52347	154
44	MORGAN STATE UNIV	R LAWRENCE	GSFC	E DELOATCH	NGT 5 90053	260
44	NORTHWESTERN UNIV	B G KANKI	ARC	E J CZEPIEL	NCC 2 1098	211
44	POLYTECH UNIV - BROOKLYN	J DOWDY	MSFC	F LIN	NGT 8 52879	387
44	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R HAMPTON	ARC	R H DODDS	NCC 2 5126	222
45	ALABAMA A&M UNIV	J LARKIN	GRC	D ILA	NAG 3 2123	1
45	ALABAMA A&M UNIV	J MONTENEGRO	MSFC	A BOND	NAG 8 1497	1
45	ALCORN STATE UNIV	W C ROEH	JSC	N W MOSES	NAG 9 1135	331
45	ARIZONA STATE UNIV	G C BARBER	LARC	C A BALANIS	NAG 1 1082	23
45	ARIZONA STATE UNIV	K J MOELLER	LARC	C BALANIS	NAG 1 1781	24
45	AUBURN UNIV	D K HALL	MSFC	S A MERRYMAN	NAS 8 98249	3
45	AUBURN UNIV	J A HAMLEY	GRC	M F ROSE	NAG 3 1930	3
45	AUBURN UNIV	R G KVATERNIK	LARC	M L WALLER	NGT 1 52205	4
45	BUCKNELL UNIV	J RALL	GSFC	S M LORD	NAG 5 3669	437
45	CAPITOL COLLEGE	DMENCHAN	GSFC	J JARREL	NAG 5 7342	249
45	CASE WESTERN RESERVE UNIV	G ADAMOVSKY	GRC	M TABIB-AZAT	NAG 3 2096	409
45	CASE WESTERN RESERVE UNIV	L G MATUS	GRC	M MEHREGANY	NAG 3 2204	409
45	CASE WESTERN RESERVE UNIV	S BAILEY	GRC	M TABIB-AZAR	NCC 3 593	411
45	CHRISTOPHER NEWPORT UNIV	W H PROSSERI	LARC	A M BUONCRISTIANI	NAG 1 1443	506
45	CITY UNIV OF NY CITY COLLEGE	A GARRISON-DARRIN	GSFC	K SHUM	NAG 5 7160	370
45	CLARK ATLANTA UNIV	S A ALTERNOVITZ	GRC	M D WILLIAMS	NAG 3 1973	186
45	CLEMSON UNIV - CLEMSON	G BUCKINGHAM	KSC	D DAWSON	NGT10 52611	462
45	CLEMSON UNIV - CLEMSON	J F DOWDY	MSFC	J N GOWDY	NGT 8 52858	462
45	CLEMSON UNIV - CLEMSON	L D STATON	LARC	E G BAXA	NAG 1 1634	459
45	CLEVELAND STATE UNIV	H KIM	GRC	P CHU	NAG 3 1379	412
45	CLEVELAND STATE UNIV	J F SOEDER	GRC	Z GAO	NCC 3 699	415
45	CLEVELAND STATE UNIV	K JULES	GRC	P P CHU	NAG 3 2040	413
45	CLEVELAND STATE UNIV	T M WALLETT	GRC	V K KONANGI	NCC 3 595	414
45	EMBRY-RIDDLE AERONAUTICAL UNIV	P G NEUDECK	GRC	A HELFRICK	NCC 3 685	167
45	FISK UNIV	D J LARKIN	GRC	W E COLLINS	NAG 3 2126	465
45	FLORIDA A&M UNIV	G C RYBICKI	GRC	S M DURBIN	NAG 3 1971	169
45	FLORIDA ATLANTIC UNIV	T P BIZON	GRC	W E GLENN	NAG 3 2023	171
45	GEORGE WASHINGTON UNIV	L L THOMPSON	GSFC	N CHAUHAN	NAG 5 4294	158
45	HAMPTON UNIV	F D BECK	LARC	A O OLADIPUPO	NCC 1 231	512
45	HARVEY MUDD COLLEGE	D L IVERSON	ARC	C L DYM	NCC 2 5293	55
45	HOWARD UNIV	D F NOGA	GRC	A RUBARI	NAG 3 2030	161
45	HOWARD UNIV	D F NOGA	GRC	D RUBAAI	NAG 3 2287	161
45	HOWARD UNIV	J L DOLCE	GRC	J A MOMOH	NAG 3 1978	161
45	HOWARD UNIV	L VITERNA	GRC	J A MOMOH	NAG 3 1931	161
45	HOWARD UNIV	M D KANKAM	GRC	A RUBAAI	NCC 3 571	162
45	JOHNS HOPKINS UNIV	D C VANDEMARK	GSFC	D R THOMPSON	NAG 5 5138	253
45	JOHNS HOPKINS UNIV	H C SHAW	GSFC	D B KHURGIN	NAG 5 8841	257
45	JOHNS HOPKINS UNIV	P J LUERS	GSFC	R CONDE	NAG 5 8852	257
45	JOHNS HOPKINS UNIV	P LUERS	GSFC	R CONDE	NAG 5 8403	256
45	JOHNS HOPKINS UNIV	P MILLAR	GSFC	M DAVIDSON	NAG 5 2232	250
45	KENT STATE UNIV	A F HEPP	GRC	C VORGAS-ABURTO	NCC 3 394	416
45	MARQUETTE UNIV	J W HINES	ARC	D JEUTTER	NCC 2 5228	545
45	MISSISSIPPI STATE UNIV	D J LARKIN	GRC	S E SADDOW	NAG 3 2073	333
45	MISSISSIPPI STATE UNIV	R L SHULER	JSC	B J BLALOCK	NAG 9 997	333
45	MORGAN STATE UNIV	B MOTT	GSFC	C J SCOTT	NAG 5 7136	259
45	NEW MEXICO STATE UNIV - LAS CRUCES	N SCHULTZ	GSFC	A BAKER	NAS 5 32252	366

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
45	NORTH CAROLINA A&T STATE UNIV	A J HATCH	ARC	M R SALAMI	NAG 2 6028	401
45	NORTH CAROLINA A&T STATE UNIV	E B CLARK	GRC	D YU	NAG 3 1835	401
45	NORTH CAROLINA A&T STATE UNIV	P CORONADO	GSFC	D S VAINSTEIN	NAG 5 7158	401
45	NORTH CAROLINA A&T STATE UNIV	R LAWRENCE	GSFC	L SHARPE	NGT 5 90027	402
45	NORTHWESTERN UNIV	M S BURRELL	GSFC	P KUMAR	NGT 5 90	211
45	OHIO STATE UNIV	D M WILT	GRC	D A RINGEL	NAG 3 2215	417
45	OHIO STATE UNIV	F J MONTEGANI	GRC	S A RINGEL	NGT 3 52355	421
45	OHIO STATE UNIV	I WEINBERG	GRC	S A RINGEL	NAG 3 1461	417
45	OHIO STATE UNIV	M C GILREATH	LARC	W D BURNSIDE	NSG 1613	422
45	OHIO STATE UNIV	M GILREATH	LARC	N D BURNSIDE	NAS 1 98102	421
45	OHIO STATE UNIV	R ROMANOFISKY	GRC	G WASHINGTON	NCC 3 733	421
45	OHIO UNIV	S D YOUNG	LARC	J RANKIN	NAG 1 2036	422
45	OLD DOMINION UNIV	A J ZUCKERWAR	LARC	S A ZAHORIAN	NAG 1 2123	517
45	OLD DOMINION UNIV	G J KOCH	LARC	C M FITZGERALD	NGT 1 52213	520
45	OLD DOMINION UNIV	K J MOELLER	LARC	C F BUNTING	NAG 1 1982	516
45	OLD DOMINION UNIV	R J DE YOUNG	LARC	H EL SAYID EL	NCC 1 230	518
45	OLD DOMINION UNIV	R J DEYOUNG	LARC	H SAYID ELE	NGT 1 52211	520
45	OLD DOMINION UNIV	R WILLIAMS	LARC	S A SCEARCE	NGT 1 52130	519
45	OLD DOMINION UNIV	S K KAHNG	LARC	S ALBIN	NAG 1 1995	516
45	PENN STATE UNIV	D M LE VINE	GSFC	C RUT	NAG 5 4018	444
45	PENN STATE UNIV	G YOUNG	MSFC	M G SCHMIDT	NGT 8 52821	451
45	PRAIRIE VIEW A&M UNIV	M D KANKAM	GRC	J O ATTIA	NAG 3 2065	473
45	PRAIRIE VIEW A&M UNIV	R Q LEE	GRC	D LI	NCC 3 475	474
45	RICE UNIV	D L JAN	JPL	F K TITTLE	NAG 9 1049	476
45	ROWAN UNIV	H D ROSE	GRC	A J MARCHESE	NCC 3 643	360
45	SAN DIEGO STATE UNIV	M ANDRO	GRC	F HARRIS	NAG 3 2050	56
45	SOUTHERN METHODIST UNIV	E KIST, JR.	LARC	Z CELIK-BUTLER	NAS 1 99100	478
45	STANFORD UNIV	H W JONES	ARC	A C FRASER-SMITH	NCC 2 5354	69
45	STANFORD UNIV	J W HINES	ARC	G KOVACS	NGT 2 52211	69
45	STANFORD UNIV	M S BURRELL	GSFC	U UMRAN	NGT 5 92	70
45	STANFORD UNIV	W J WAGNER	HQ	P H SCHERRER	NAGW 2502	66
45	TENNESSEE STATE UNIV	R LAWRENCE	GSFC	D E ROGERS	NGT 5 90013	466
45	TEXAS A&M UNIV	A PARKER, JR.	DFRC	S EMBABI	NAG 4 106	479
45	TEXAS A&M UNIV	C LIVINGSTON	HQ	F R BEST	NAGW 1194	481
45	TEXAS A&M UNIV	K HURLBERT	JSC	J S YAGOOBI	NAG 9 882	480
45	TEXAS A&M UNIV-KINGSVILLE	K L HAMES	JSC	S W PARK	NAG 9 1093	483
45	TEXAS SOUTHERN UNIV	B J BRAGG	JSC	A R CHOWDHURY	NAG 9 781	483
45	TEXAS TECH UNIV	L R PINERO	GRC	E A O	NAG 3 2005	484
45	THE CATHOLIC UNIV OF AMERICA	G BROWN	GSFC	J CRASSIDIS	NAG 5 7624	164
45	THE CATHOLIC UNIV OF AMERICA	L PURVES	GSFC	C C NGUYEN	NAG 5 780	163
45	THE UNIV OF CENTRAL FLORIDA	M C BAILEY	LARC	C G CHRISTODOULOU	NAG 1 1917	176
45	TUSKEGEE UNIV	D C FERGUSON	GRC	C V DORESWAMY	NCC 3 726	6
45	TUSKEGEE UNIV	S A ALTEROVITZ	GRC	K K DAS	NAG 3 2127	5
45	UNIV HOUSTON-HOUSTON	T JEFFCOAT	JSC	D E BORING	NAG 9 892	485
45	UNIV OF AKRON	R J ACOSTA	GRC	O C UGWEJE	NAG 3 2279	423
45	UNIV OF AKRON	R L PATTERSON	GRC	M E ELBULUK	NAG 3 2278	423
45	UNIV OF ALABAMA - HUNTSVILLE	D J LARKIN	GRC	D A GEORGE	NAG 3 2285	8
45	UNIV OF ALABAMA - HUNTSVILLE	J H DOWDY	MSFC	Y B SHTESSEL	NGT 8 52843	18
45	UNIV OF CINCINNATI	S M GENG	GRC	H HENDERSON	NAG 3 2281	424
45	UNIV OF DAYTON	H NGUYEN	GRC	M ATQUZZAMAN	NCC 3 703	426
45	UNIV OF FLORIDA	M A MOTTER	LARC	J C PRINCIPE	NAG 1 2188	178
45	UNIV OF GLASGOW	T R GOVINDAN	ARC	A ASEN OV	NAG 2 1241	559
45	UNIV OF HAWAII AT MANOA - HONOLULU	W H MILLER	GSFC	S LIN	NAG 5 7383	202
45	UNIV OF ILLINOIS - CHICAGO CIRCLE	P J GEORGE	GRC	K SHENAI	NAS 3 99189	217
45	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	G A SOFFEN	GSFC	G C PAPAN	NGT 5 73	223
45	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	K S CHUN	GRC	U MADHOW	NAG 3 2263	219
45	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	M KRAINAK	GSFC	G PAPAN	NAG 5 7692	221
45	UNIV OF MARYLAND - COLLEGE PARK	H C SHAW	GSFC	D DAGENAIS	NAG 5 8711	272
45	UNIV OF MARYLAND - COLLEGE PARK	J W BAGWELL	GRC	J S BARAS	NCC 3 528	275
45	UNIV OF MASSACHUSETTS - AMHERST	D C VANDEMARK	GSFC	R E MCINTOSH	NAG 5 5151	309
45	UNIV OF MASSACHUSETTS - AMHERST	D LEVINE	GSFC	K CARVER	NAS 5 99133	310
45	UNIV OF MICHIGAN - ANN ARBOR	F B BECK	LARC	J L VOLAKIS	NAG 1 1478	315
45	UNIV OF MICHIGAN - ANN ARBOR	G E PONCHAK	GRC	L B KATEHI	NAG 3 1972	316
45	UNIV OF MICHIGAN - ANN ARBOR	G E PONCHAK	GRC	L B KATEHI	NAG 3 2085	316
45	UNIV OF MICHIGAN - ANN ARBOR	G PONCHAK	GRC	P BHATTACHARYA	NAG 3 2237	317
45	UNIV OF MICHIGAN - ANN ARBOR	J W JOHNSON	LARC	A W ENGLAND	NAG 1 2142	315

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
45	UNIV OF MICHIGAN - ANN ARBOR	P D LAIRD	ARC	J H HOLLAND	NGT 2 52215	323
45	UNIV OF NEW MEXICO-ALBUQUERQUE	K KRISHEN	JSC	M SHAHINPOOR	NAG 9 995	368
45	UNIV OF NEW MEXICO-ALBUQUERQUE	W H MILLER	GSFC	G MAKI	NAG 5 7360	368
45	UNIV OF OKLAHOMA - NORMAN	M LUTHER	HQ	P J MCCANN	NGT 30308	431
45	UNIV OF OKLAHOMA - NORMAN	S K KAHNG	LARC	J R CRUZ	NAG 1 2178	431
45	UNIV OF PENNSYLVANIA	C HICKS	JPL	N H FARHAT	NGT 51393	452
45	UNIV OF PITTSBURGH	G E SCHWARZE	GRC	W R WIESERMAN	NAG 3 2013	453
45	UNIV OF PUERTO RICO - MAYAGUEZ	M BUTLER	GSFC	R FERNANDEZ-SEIN	NCC 5 200	557
45	UNIV OF ROCHESTER	C R MCCREIGHT	ARC	W J FORREST	NAG 2 1280	396
45	UNIV OF ROCHESTER	J H GOEBEL	ARC	W J FORREST	NAG 2 975	396
45	UNIV OF ROCHESTER	P M GOORJIAN	ARC	G AGRAWAL	NCC 2 5149	396
45	UNIV OF SOUTH ALABAMA	C K GARY	ARC	H K LIU	NAG 2 1050	20
45	UNIV OF SOUTHERN CALIFORNIA	F MONTEGANI	GRC	J SILVESTER	NGT 3 52336	126
45	UNIV OF TEXAS - AUSTIN	D CHRISTOPHER	GRC	J L BENO	NAG 3 2265	490
45	UNIV OF TEXAS - DALLAS	D HOLLAND	HQ	L TAMIL	NGT 51665	498
45	UNIV OF TEXAS - EL PASO	F BEIGMONTE	JSC	G LUSH	NAG 9 920	499
45	UNIV OF TEXAS - EL PASO	LOWRY	ARC	P J TELLER	NAG 2 1138	498
45	UNIV OF TOLEDO	G Y BAAKUNI	GRC	K J CIOS	NAG 3 1946	426
45	UNIV OF TOLEDO	R E JONES	GRC	S C KWATRA	NAG 3 1718	426
45	UNIV OF TOLEDO	R L PATTERSON	GRC	Y J KAPOOR	NAG 3 1967	426
45	UNIV OF VIRGINIA	G BROWN	GSFC	C KNOSPE	NAG 5 7625	524
45	UNIV OF VIRGINIA	G MUCKLOW	GSFC	T CROWE	NAG 5 8663	525
45	UNIV OF VIRGINIA	M KIFLE	GRC	D G WILSON	NAG 3 1948	522
45	UNIV OF VIRGINIA	R J KERCCZEWSKI	GRC	S J	NCC 3 642	526
45	UNIV OF WEST FLORIDA	R J SHIVELY	ARC	D STILL	NAG 2 1332	186
45	VANDERBILT UNIV	M M GATES	GSFC	L MASSENGILL	NAG 5 7103	470
45	WAYNE STATE UNIV	D BRINKER	GRC	P WOODYARD	NAG 3 2180	325
46	ALABAMA A&M UNIV	G MYERS	MSFC	A SHARMA	NAG 8 1614	2
46	ARIZONA STATE UNIV	E TU	ARC	A CHATTOPADHYAY	NCC 2 5127	26
46	AUBURN UNIV	B S SINGH	GRC	D W MACKOWSKI	NAG 3 1882	3
46	AUBURN UNIV	J F DOWDY	MSFC	G T FLOWERS	NGT 8 52851	4
46	AUBURN UNIV	J F DOWDY	MSFC	P D JONES	NGT 8 52870	4
46	AUBURN UNIV	S RYAN	MSFC	V C CHANEY	NGT 8 52826	4
46	BRIGHAM YOUNG UNIV	J DOWDY	MSFC	R DAINES	NGT 8 52877	501
46	CALIFORNIA INST OF TECH	F P CHIARAMONTE	GRC	J F BRADY	NAG 3 2166	43
46	CALIFORNIA INST OF TECH	J GRADY	GSFC	F HARRISON	NAS 5 98152	50
46	CALIFORNIA STATE UNIV - LOS ANGELES	R LAWRENCE	GSFC	M RANDLE	NGT 5 90016	53
46	CARNEGIE - MELLON UNIV	D LAVERY	HQ	T KANADE	NAG 9 1090	438
46	CARNEGIE - MELLON UNIV	D LAVERY	JSC	T KANADE	NAG 9 1092	438
46	CARNEGIE - MELLON UNIV	H ALDRIDGE	JSC	W WHITAKER	NAG 9 1141	438
46	CARNEGIE - MELLON UNIV	M H SIMS	ARC	M HEBERT	NGT 2 52232	439
46	CARNEGIE - MELLON UNIV	N MARSWELL	JPL	H MORAVEC	NCC 7 7	439
46	CARNEGIE - MELLON UNIV	R DEL ROSARIO	GRC	J H GRIFFIN	NAS 3 27735	438
46	CASE WESTERN RESERVE UNIV	A CHAIT	GRC	J S T	NCC 3 562	411
46	CASE WESTERN RESERVE UNIV	C DELLACORTE	GRC	J M PRAHL	NCC 3 625	411
46	CASE WESTERN RESERVE UNIV	D MONTEGANI	GRC	J R KADAMBI	NGT 3 52340	412
46	CASE WESTERN RESERVE UNIV	F MONTEGANI	GRC	I GREBER	NGT 3 52323	412
46	CASE WESTERN RESERVE UNIV	H D ROSS	GRC	J S TIEN	NCC 3 350	410
46	CASE WESTERN RESERVE UNIV	I TELESMA	GRC	R MULLEN	NCC 3 583	411
46	CASE WESTERN RESERVE UNIV	J C DUH	GRC	I D ALEXANDER	NAG 3 2160	409
46	CASE WESTERN RESERVE UNIV	K SACKSTEDER	GRC	J S T	NCC 3 633	411
46	CASE WESTERN RESERVE UNIV	N N NEMETH	GRC	D A GASPARINI	NCC 3 653	411
46	CASE WESTERN RESERVE UNIV	N N NEMTH	GRC	D A GASPARINI	NCC 3 518	411
46	CASE WESTERN RESERVE UNIV	W R JONES	GRC	J M PRAHL	NCC 3 409	410
46	CITY UNIV OF NY CITY COLLEGE	F D CHIARAMONTE	GRC	A ACRIVOS	NCC 3 607	370
46	CLARKSON UNIV	E J COX	DFRC	M GLAUSER	NGT 4 72400	372
46	CLARKSON UNIV	J DOWDY	MSFC	G AHMADI	NGT 8 52849	372
46	CLARKSON UNIV	J F DOWDY	MSFC	G AHMADI	NGT 8 52853	372
46	CLEVELAND STATE UNIV	B J MOTIL	GRC	E G KESHOCK	NAG 3 1922	413
46	CLEVELAND STATE UNIV	J M MULLINS	GRC	D L KRAVEVICH	NCC 3 433	414
46	CLEVELAND STATE UNIV	J SALEM	GRC	J HEMANN	NCC 3 499	414
46	CLEVELAND STATE UNIV	N N NEMETH	GRC	S F DUFFY	NCC 3 415	414
46	CLEVELAND STATE UNIV	N N NEMETH	GRC	S F DUFFY	NCC 3 488	414
46	COLORADO SCH OF MINES	B SINGH	GRC	M NAKAGAWA	NAG 3 1970	126
46	COLORADO STATE UNIV	J VAUGHN	MSFC	P J WILBUR	NAG 8 1615	128
46	CORNELL UNIV	D G LOWICKI	GRC	A R INGRAFFEA	NAG 3 1993	379

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
46	CORNELL UNIV	J C NEWMAN, JR.	LARC	A R INGRAFFEA	NAG 1 2069	379
46	CORNELL UNIV	J C NEWMAN	LARC	A R INGRAFFEA	NAG 1 1184	379
46	CORNELL UNIV	P B BOGERT	LARC	R PETTIT	NAG 1 2013	379
46	CORNELL UNIV	R HAKIMAZADEH	GRC	M LOUGE	NAG 3 2112	379
46	CORNELL UNIV	R HAKIMZADEH	GRC	J T JENKINS	NCC 3 468	384
46	DREXEL UNIV	D D ROSS	GRC	D A RUFF	NAG 3 1884	440
46	DUKE UNIV	D E COX	LARC	R L CLARK	NCC 1 250	398
46	DUKE UNIV	JDOWDY	MSFC	L N VIRGIN	NGT 8 52842	399
46	FLA INTERNATIONAL UNIV	J J SINGH	LARC	C LEVY	NAG 1 1787	167
46	FLORIDA ATLANTIC UNIV	K H LYLE	LARC	J M CUSCHIERI	NAG 1 1812	171
46	FLORIDA STATE UNIV	K Q ZAMAN	GRC	C K TAM	NAG 3 2102	173
46	GEORGIA INST OF TECH	B SINGH	GRC	M K SMITH	NAG 3 1949	190
46	GEORGIA INST OF TECH	E S WEISER	LARC	J S COLTON	NAG 1 1951	189
46	GEORGIA INST OF TECH	G A LESANE	HQ	M K SMITH	NGT 51346	192
46	GEORGIA INST OF TECH	J C NEWMAN, JR.	LARC	W S JOHNSON	NAG 1 2008	189
46	GEORGIA INST OF TECH	R CAIMI	KSC	H LIPKIN	NGT10 52602	194
46	GEORGIA INST OF TECH	R D JOSLIN	LARC	A GLEZER	NGT 1 52132	193
46	GEORGIA INST OF TECH	R DABNEY	MSFC	A CALISE	NAG 8 1638	191
46	GEORGIA INST OF TECH	R S KARDA	GRC	G P NEITZEL	NAG 3 1894	190
46	GEORGIA INST OF TECH	T A ZANG	LARC	F MISTREE	NGT 1 52170	193
46	GEORGIA INST OF TECH	W HPROSSER	LARC	J QU	NAG 1 1810	188
46	HOWARD UNIV	T KERSLAKE	GRC	E K GLAPKE	NAG 3 1907	161
46	IDAHO STATE UNIV	G A FLEMING	LARC	J D BLOTTER	NAG 1 2138	207
46	INDIANA UNIV	D E PAXON	GRC	R NALIM	NAG 3 2207	223
46	IOWA STATE UNIV	D P MILLER	GRC	J H OLIVER	NAG 3 1786	231
46	IOWA STATE UNIV	F J MONTEGANI	GRC	A ROTHMAYER	NGT 3 52332	232
46	JOHNS HOPKINS UNIV	B S SINGH	GRC	A PROSPERETTI	NAG 3 1924	250
46	JOHNS HOPKINS UNIV	H K NAHRA	GRC	D HERMAN	NAG 3 1815	250
46	JOHNS HOPKINS UNIV	H K NAHRA	GRC	P OGUZ	NAG 3 1925	250
46	JOHNS HOPKINS UNIV	M J ROBERTS	LARC	R E GREEN	NAG 1 1811	249
46	KANSAS STATE UNIV	J C NEWMAN	LARC	D V SWENSON	NAG 1 1503	236
46	KANSAS STATE UNIV	M S BURRELL	GSFC	J A MAIN	NGT 5 71	237
46	KETTERING UNIV	J M HOUSNER	LARC	M EL-SAYED	NAG 1 1837	312
46	KETTERING UNIV	K GROSS	MSFC	R BERG	NAG 8 1337	312
46	LEHIGH UNIV	B S LAZOS	LARC	D O ROCKWELL	NAG 1 1885	441
46	MASSACHUSETTS INST OF TECH	DOTY	MSFC	A F WHITT	NAG 8 1401	302
46	MASSACHUSETTS INST OF TECH	F J MONTEGANI	GRC	S HOCHGREB	NGT 3 52346	306
46	MASSACHUSETTS INST OF TECH	H ROSS	GRC	S HOCHGREB	NAG 3 1640	292
46	MASSACHUSETTS INST OF TECH	H THOMAS	ARC	J K SALISBURY	NCC 2 1121	305
46	MASSACHUSETTS INST OF TECH	J DOWDY	MSFC	A WITT	NGT 8 52880	307
46	MASSACHUSETTS INST OF TECH	L S N	GRC	I A WALTZ	NAG 3 1664	292
46	MASSACHUSETTS INST OF TECH	W HAYDEN	HQ	D MILLER	NAG 5 6079	298
46	MCNEESE STATE UNIV	D M GRODSINSKY	GRC	D HAMPTON	NCC 3 471	244
46	MICHIGAN STATE UNIV	J B RANSOM	LARC	R C AVERILL	NAG 1 2213	312
46	MISSISSIPPI STATE UNIV	E R MCFARLAND	GRC	W R BRILEY	NAG 3 2176	333
46	MISSISSIPPI STATE UNIV	J C NEWMAN, JR.	LARC	S R DANIEWCZ	NAG 1 2003	333
46	NEW MEXICO STATE UNIV - LAS CRUCES	D G SICKOREZ	JSC	L T LAFRANCE	NAG 9 1073	366
46	NEW MEXICO STATE UNIV - LAS CRUCES	J M STOLTZFUS	JSC	I H LESLIC	NAG 9 938	366
46	NORFOLK STATE UNIV	S H CHOI	LARC	K D SONG	NCC 1 280	515
46	NORTH CAROLINA A&T STATE UNIV	J C NEWMAN, JR.	LARC	K N SHIVAKUMAR	NAG 1 1754	400
46	NORTH CAROLINA STATE UNIV	H N ZUMBRUN	LARC	O J MYERS	NGT 1 52164	405
46	NORTHWESTERN UNIV	A NURRIDIN	HQ	T IGUSA	NGT 5 50198	211
46	NORTHWESTERN UNIV	F P CHIARAMONTE	GRC	H RIECKE	NAG 3 2113	209
46	NORTHWESTERN UNIV	H D ROSS	GRC	M MATALON	NAG 3 1604	208
46	NORTHWESTERN UNIV	J GRADY	GSFC	M P ULMER	NAS 5 98153	210
46	NORTHWESTERN UNIV	N D PILTCH	GRC	S H SOHRAB	NAG 3 1863	208
46	NORTHWESTERN UNIV	N PACKMAN	JSC	R M LUEPTOW	NAG 9 1053	210
46	OHIO STATE UNIV	J MALIN	JSC	D WOODS	NAG 9 786	420
46	OHIO STATE UNIV	K C CIVISKAS	GRC	M G DUNN	NAG 3 2157	417
46	OHIO STATE UNIV	K Q ZAMAN	GRC	D	NAG 3 1986	417
46	OHIO STATE UNIV	T T MOCKLER	GRC	R N CHRISTENSEN	NCC 3 434	421
46	OLD DOMINION UNIV	A T POPE	LARC	S TIWARI	NCC 1 254	518
46	OLD DOMINION UNIV	L EVANS	LARC	A C TAYLOR	NGT 51247	519
46	OLD DOMINION UNIV	N J JOHNSTON	LARC	S TIWARI	NCC 1 227	518
46	OLD DOMINION UNIV	O O STORAASLI	LARC	D T NGUYEN	NAG 1 858	515
46	PENN STATE UNIV	B A LERCH	GRC	C J LISSENOEN	NCC 3 597	449

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
46	PENN STATE UNIV	C F LORENZO	GRC	A RAY	NAG 3 2146	443
46	PENN STATE UNIV	J DOWDY	MSFC	D A SANTAVICCA	NGT 8 52841	451
46	PENN STATE UNIV	J DOWDY	MSFC	G A SMITH	NGT 8 52876	451
46	PRAIRIE VIEW A&M UNIV	W C ROEH	JSC	W F TROTTEY	NAG 9 1136	473
46	PRINCETON UNIV	D L URBAN	GRC	F L DRYER	NCC 3 735	359
46	PRINCETON UNIV	H D ROSS	GRC	F L DRYER	NCC 3 487	359
46	PURDUE UNIV	Y HICKS	GRC	N M LAURENDEAU	NAG 3 2251	227
46	PURDUE UNIV	Y R HICKS	GRC	N M LAURENDEAU	NAG 3 1782	226
46	RENSSELAER POLYTECH INST	M H CARPENTER	LARC	K E JARSEN	NGT 1 52160	389
46	RICE UNIV	SGOLDSTEIN	JSC	A J MEADE	NGT 51230	477
46	RICE UNIV	T A PETERS	JSC	Y BAYAZITOGU	NAG 9 948	476
46	SAINT LOUIS UNIV	C CORTE	GRC	P A BENOY	NAG 3 2245	335
46	STANFORD UNIV	F CHARIMONTE	GRC	J K EATON	NCC 3 640	69
46	STANFORD UNIV	F MONTEGANI	GRC	M CAPPELI	NGT 51238	69
46	STANFORD UNIV	J C ROSS	ARC	P BRADSHAW	NCC 2 5140	68
46	STANFORD UNIV	M H SIMS	ARC	L LEIFER	NGT 2 52208	69
46	STANFORD UNIV	M ROGERS	ARC	P MOIN	NCC 2 460	67
46	STATE UNIV OF NY - BUFFALO	J P DRUMMOND	LARC	P GIBI	NAG 1 1122	391
46	STATE UNIV OF NY - BUFFALO	J P DRUMMOND	LARC	P GIVI	NAG 1 2238	391
46	SYRACUSE UNIV	G J VAN FOSSEN	GRC	J E LAGRAFF	NAG 3 2250	395
46	TENNESSEE STATE UNIV	D S SINGH	GRC	P X TAO	NAG 3 1797	466
46	TENNESSEE STATE UNIV	M L BOROWSKI	GRC	D B ROGERS	NAG 3 2244	466
46	TENNESSEE TECHNOLOGICAL UNIV	J DOWDY	MSFC	C WILSON	NGT 8 52883	467
46	TEXAS A&M UNIV	E K UNGAR	JSC	J SEYED-YAGOOBI	NAG 9 1145	481
46	TEXAS A&M UNIV	F P CHIARAMONTE	GRC	J SEYED-YAGOOBI	NCC 3 602	481
46	TEXAS A&M UNIV	G T MONTAGUE	GRC	A B PALAZZOLO	NAG 3 1989	479
46	TEXAS A&M UNIV	G T MONTAGUE	GRC	A B PALAZZOLO	NAG 3 1990	479
46	TEXAS A&M UNIV	M S WHORTON	MSFC	A B PALAZZOLO	NAG 8 1343	480
46	TEXAS A&M UNIV	P VALLELY	MSFC	J J MOORE	NGT 8 52815	482
46	TEXAS A&M UNIV	S A HIPPENSTEELE	GRC	S C LAU	NAG 3 1980	478
46	TEXAS SOUTHERN UNIV	M K EWERT	JSC	J HILL	NAG 9 1132	483
46	TUSKEGEE UNIV	H TRINH	MSFC	D A IBRAHIM	NAG 8 1246	5
46	UNIV HOUSTON-HOUSTON	B S MOTIL	GRC	V BALAKOTAIAH	NAG 3 1840	484
46	UNIV HOUSTON-HOUSTON	D SICKOREZ	JSC	R B BANNEROT	NAG 9 867	485
46	UNIV HOUSTON-HOUSTON	J D CORNWELL	JSC	L C WHITTE	NAG 9 1012	485
46	UNIV HOUSTON-HOUSTON	J D CORNWELL	JSC	N SHAMSUNDAR	NAG 9 853	485
46	UNIV OF MINN	D E ASHPIS	GRC	T W SIMON	NCC 3 652	330
46	UNIV OF MINN	F F SIMON	GRC	T W SIMON	NAG 3 1732	326
46	UNIV WISCONSIN-PLATTEVILLE	N N NEMETH	GRC	O JADAAN	NAG 3 2242	546
46	UNIV OF AKRON	S A THORP	GRC	A F SALEEB	NCC 3 578	423
46	UNIV OF AKRON	W B DUVAL	GRC	C BATUR	NCC 3 567	423
46	UNIV OF ALABAMA - HUNTSVILLE	J DOWDY	MSFC	C HAWK	NGT 8 52878	18
46	UNIV OF ALABAMA - HUNTSVILLE	J F DOWDY	MSFC	B LANDRUM	NGT 8 52855	18
46	UNIV OF ALABAMA - HUNTSVILLE	J J HUTT	MSFC	D FEIKEMA	NGT 8 52804	17
46	UNIV OF ALABAMA - HUNTSVILLE	R KOCZOR	MSFC	N LI	NAG 8 1217	14
46	UNIV OF ALABAMA - HUNTSVILLE	R LAWRENCE	GSFC	S KOWEL	NGT 5 90020	17
46	UNIV OF ALABAMA - HUNTSVILLE	T KUBLIN	MSFC	R A FREDERICK	NAG 8 1216	14
46	UNIV OF ALABAMA - UNIV	J BILBRO	MSFC	M W TODD	NGT 8 52835	20
46	UNIV OF ALABAMA - UNIV	J R COWAN	MSFC	T MASKEY	NAG 8 1407	19
46	UNIV OF ARIZONA	D H JACOBSON	MSFC	J H BURGE	NAS 5 99208	40
46	UNIV OF ARIZONA	J E FINN	ARC	K R SRIDHAR	NCC 2 5357	40
46	UNIV OF ARIZONA	P M DOTY	MSFC	J R SRIDHAR	NAG 8 1469	38
46	UNIV OF ARIZONA	S P WALKER	LARC	E MADENCI	NAG 1 2052	29
46	UNIV OF CALIFORNIA - BERKELEY	H D ROSS	GRC	A C FERNANDEZ-PELLO	NCC 3 478	81
46	UNIV OF CALIFORNIA - BERKELEY	S R ELLIS	ARC	H KAZERAONI	NCC 2 909	81
46	UNIV OF CALIFORNIA - DAVIS	V C VANDERBILT	ARC	B D SHAW	NCC 3 353	87
46	UNIV OF CALIFORNIA - IRVINE	H D ROSS	GRC	S E ELGHOBASHI	NAG 3 1605	89
46	UNIV OF CALIFORNIA - IRVINE	H D ROSS	GRC	W A SIRIGNANO	NAG 3 2024	89
46	UNIV OF CALIFORNIA - LOS ANGELES	B S SINGH	GRC	R E KELLY	NAG 3 1819	92
46	UNIV OF CALIFORNIA - LOS ANGELES	J DOWDY	MSFC	M A ABDOU	NGT 8 52844	101
46	UNIV OF CALIFORNIA - LOS ANGELES	J M LEE	ARC	T K FREDERKING	NAG 2 1228	92
46	UNIV OF CALIFORNIA - SAN DIEGO	D DIETRICH	GRC	F WILLIAMS	NAG 3 2161	103
46	UNIV OF CALIFORNIA - SAN DIEGO	H K TRAN	ARC	R E SKELTON	NCC 2 1135	112
46	UNIV OF CALIFORNIA - SAN DIEGO	O MEHMED	GRC	J KOSMATKA	NCC 3 569	112
46	UNIV OF CINCINNATI	K W BAKER	GRC	M J KAZMIERCZAK	NAG 3 1706	424
46	UNIV OF COLORADO - BOULDER	H D ROSS	GRC	J R HERTZBERG	NAG 3 1616	131

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
46	UNIV OF COLORADO - BOULDER	M S BURRELL	GSFC	P AXELRAD	NGT 5 47	147
46	UNIV OF COLORADO - BOULDER	R FRIEDMAN	GRC	M C BRANCH	NAG 3 1685	131
46	UNIV OF CONNECTICUT	B S SINGH	GRC	A FAGHRI	NAG 3 1870	151
46	UNIV OF DELAWARE	K B PASCHAL	LARC	A K PRASAD	NAG 1 1815	155
46	UNIV OF DELAWARE	M W WEISLOGEL	GRC	L W SCHWARTZ	NAG 3 1920	155
46	UNIV OF FLORIDA	A RODRIGUEZ	KSC	W SHYY	NAG10 261	180
46	UNIV OF ILLINOIS - CHICAGO CIRCLE	A NURRIDIN	HQ	C M MEGARIDIS	NGT 5 50214	218
46	UNIV OF ILLINOIS - CHICAGO CIRCLE	C TALLEY	MSFC	C MEGARIDIS	NAG 8 1473	217
46	UNIV OF ILLINOIS - CHICAGO CIRCLE	F MONTEGANI	GRC	C MEGARIDIS	NGT 3 52337	217
46	UNIV OF ILLINOIS - CHICAGO CIRCLE	F MONTEGANI	GRC	M Y CHOI	NGT 3 52322	217
46	UNIV OF ILLINOIS - CHICAGO CIRCLE	H D ROSS	GRC	M Y CHOI	NAG 3 1631	216
46	UNIV OF ILLINOIS - CHICAGO CIRCLE	L SHAW	GRC	C MEGARIDIS	NGT 3 52300	217
46	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	A A WRAY	ARC	R D MOSER	NGT 2 52229	222
46	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	B S SINGH	GRC	H AREF	NAG 3 2122	218
46	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	L SHAW	GRC	M B BRAGG	NGT 3 52308	222
46	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R W HAMPTON	ARC	R H DODDS	NAG 2 1126	218
46	UNIV OF IOWA	D STOCKER	GRC	L D CHEN	NAG 3 1592	233
46	UNIV OF KENTUCKY	G C HORNER	LARC	M ROCHE	NGT 1 52223	241
46	UNIV OF KENTUCKY	J F DOWDY	MSFC	J A MAIN	NGT 8 52869	241
46	UNIV OF MARYLAND - COLLEGE PARK	D G LEWICKI	GRC	D J PINES	NAG 3 2223	261
46	UNIV OF MARYLAND - COLLEGE PARK	D P STOCKER	GRC	J L TORERO	NAG 3 1960	261
46	UNIV OF MARYLAND - COLLEGE PARK	J DIDION	GSFC	R RANDERMACHER	NAG 5 8378	271
46	UNIV OF MARYLAND - COLLEGE PARK	M S BURRELL	GSFC	D L AKIN	NGT 5 50	277
46	UNIV OF MARYLAND - COLLEGE PARK	R NETTING	HQ	D M SANNER	NAGW 5114	274
46	UNIV OF MARYLAND BALTIMORE COUNTY	M S BURRELL	GSFC	N T WRIGHT	NGT 5 53	280
46	UNIV OF MARYLAND BALTIMORE COUNTY	R LAWRENCE	GSFC	R KAIL	NGT 5 90049	280
46	UNIV OF MASSACHUSETTS - AMHERST	D G LEWICKI	GRC	K DANAI	NAG 3 1991	308
46	UNIV OF MEMPHIS	F B OSWALD	GRC	H H LIN	NAG 3 2092	467
46	UNIV OF MICHIGAN - ANN ARBOR	D MONTEGANI	GRC	S CECCIO	NGT 3 52319	324
46	UNIV OF MICHIGAN - ANN ARBOR	D URBAN	GRC	G M FAETH	NAG 3 2048	316
46	UNIV OF MICHIGAN - ANN ARBOR	D W GRIFFIN	GRC	R G LARSON	NAG 3 2134	316
46	UNIV OF MICHIGAN - ANN ARBOR	F CHIARAMONTE	GRC	P MERTE	NAG 3 1900	316
46	UNIV OF MICHIGAN - ANN ARBOR	F P CHIARAMONTE	GRC	H MERTE	NAG 3 1684	316
46	UNIV OF MICHIGAN - ANN ARBOR	H D ROSS	GRC	G M FAETH	NAG 3 1878	316
46	UNIV OF MICHIGAN - ANN ARBOR	J B MCGUILLEN	GRC	L P BERNAL	NCC 3 474	323
46	UNIV OF MICHIGAN - ANN ARBOR	O MEHMED	GRC	C PIERRE	NAG 3 1880	316
46	UNIV OF MISSOURI - COLUMBIA	J F DOWDY	MSFC	C A KLUEVER	NGT 8 52850	336
46	UNIV OF MISSOURI-KANSAS CITY	L SHAW	GRC	G D GUTE	NGT 3 52303	337
46	UNIV OF NORTH DAKOTA	M M HASAN	GRC	A R HASAN	NAG 3 2094	408
46	UNIV OF NORTH DAKOTA	R F HANDSCHUH	GRC	G D BIBEL	NAG 3 1829	408
46	UNIV OF OKLAHOMA - NORMAN	H D ROSS	GRC	A K AGRAWAL	NAG 3 1594	431
46	UNIV OF OKLAHOMA - NORMAN	S K KAHNG	LARC	J R CRUZ	NAG 1 2059	430
46	UNIV OF PENNSYLVANIA	S F ZORNETZER	ARC	K A BOAHEN	NAG 2 1245	451
46	UNIV OF PUERTO RICO - MAYAGUEZ	L G HORTA	LARC	L SUAREZ	NAG 1 1496	556
46	UNIV OF SOUTHERN CALIFORNIA	B S SINGH	GRC	S S SADHAL	NAG 3 1842	123
46	UNIV OF SOUTHERN CALIFORNIA	B SIGH	GRC	T MAXWORTHY	NAG 3 2125	123
46	UNIV OF SOUTHERN CALIFORNIA	D D ROSS	GRC	P N EGOLFOPOULOS	NAG 3 1877	123
46	UNIV OF SOUTHERN CALIFORNIA	D W GRIFFIN	GRC	H G PEARLMAN	NCC 3 501	126
46	UNIV OF SOUTHERN CALIFORNIA	H D ROSS	GRC	F N EGOLFOPOULOS	NAG 3 1615	123
46	UNIV OF SOUTHERN CALIFORNIA	K J WEILAND	GRC	P D RONNEY	NAG 3 2124	123
46	UNIV OF SOUTHERN CALIFORNIA	S C OLSON	GRC	P D RONNEY	NAG 3 1611	123
46	UNIV OF TEXAS - AUSTIN	C LIN	JSC	K R DILLER	NAG 9 841	494
46	UNIV OF TEXAS - AUSTIN	D P STOCKER	GRC	O A EZEKEYE	NAG 3 1876	490
46	UNIV OF TEXAS - AUSTIN	E L CHRISTIANSEN	JSC	E P FAHRENTHOLD	NAG 9 946	495
46	UNIV OF TEXAS - AUSTIN	J C NEWMAN, JR.	LARC	M E MEAR	NAG 1 1121	490
46	UNIV OF TEXAS - AUSTIN	J C NEWMAN, JR.	LARC	M E MEAR	NAG 1 2197	490
46	UNIV OF TEXAS - AUSTIN	K KONNO	JSC	J H BENO	NAS 3 99169	496
46	UNIV OF TOLEDO	M P PROCTOR	GRC	T G KEITH	NCC 3 553	428
46	UNIV OF TOLEDO	M P PROCTOR	GRC	T G KEITH	NCC 3 616	429
46	UNIV OF TOLEDO	O MEHMED	GRC	T G KEITH	NCC 3 527	428
46	UNIV OF TOLEDO	O MEHMED	GRC	T G KEITH	NCC 3 717	429
46	UNIV OF TOLEDO	R L FUSARO	GRC	T G KEITH	NCC 3 565	428
46	UNIV OF TOLEDO	R L FUSARO	GRC	T G KEITH	NCC 3 639	429
46	UNIV OF TOLEDO	T L KRANTZ	GRC	T G KEITH	NAG 3 2269	427
46	UNIV OF VIRGINIA	A J PROVENZA	GRC	P E ALLAIRE	NAG 3 2009	522
46	UNIV OF VIRGINIA	A J PROVENZA	GRC	P E ALLAIRE	NAG 3 2183	522

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
46	UNIV OF VIRGINIA	G BROWN	GRC	C R KNOSPE	NAG 3 2199	522
46	UNIV OF VIRGINIA	H ROSS	GRC	H CHELLIAH	NAG 3 1928	521
46	UNIV OF VIRGINIA	J W POSEY	LARC	H G WOOD	NCC 1 340	526
46	UNIV OF VIRGINIA	T GLASGOW	GRC	H HAJ-HARIRI	NAG 3 1916	521
46	UNIV OF WISCONSIN - MADISON	M J VALCO	GRC	R D REITZ	NAG 3 1794	547
46	VA POLYTECH INST & ST UNIV	C H GERHOLD	LARC	R H THOMAS	NAG 1 1657	527
46	VA POLYTECH INST & ST UNIV	D L PALUMBO	LARC	C R FULLER	NAG 1 2158	529
46	VA POLYTECH INST & ST UNIV	D L PALUMBO	LARC	C R FULLER	NCC 1 282	530
46	VA POLYTECH INST & ST UNIV	G C HORNER	LARC	D J LEO	NAG 1 2190	529
46	VA POLYTECH INST & ST UNIV	J T WANG	LARC	R K KAPANIA	NAG 1 1884	528
46	VA POLYTECH INST & ST UNIV	K H LYLE	LARC	C R FULLER	NAG 1 1683	527
46	VA POLYTECH INST & ST UNIV	L SHAW	GRC	U VANDSBURGER	NGT 3 52304	531
46	VA POLYTECH INST & ST UNIV	O MEHMED	GRC	W NG	NAG 3 2098	529
46	VANDERBILT UNIV	D MONTEGANI	GRC	R PITZ	NGT 3 52316	470
46	VANDERBILT UNIV	H WAITES	MSFC	M GOLDFARB	NGT 8 52839	471
46	VANDERBILT UNIV	J F DOWDY	MSFC	M GOLDFARB	NGT 8 52857	471
46	VANDERBILT UNIV	J F DOWDY	MSFC	M GOLDFARB	NGT 8 52859	471
46	WASHINGTON STATE UNIV	F P CHIARAMONTE	GRC	J N CHUNG	NAG 3 1387	542
46	WAYNE STATE UNIV	P S GREENBERG	GRC	J KU	NAG 3 1729	325
46	WEST VIRGINIA UNIV	F SIX	MSFC	L E BANTA	NGT 8 52808	544
46	YALE UNIV	D STOCKER	GRC	A GOMEZ	NAG 3 1688	153
46	YALE UNIV	K J WEILAND	GRC	M B LONG	NAG 3 1939	153
47	ALABAMA A&M UNIV	B PENN	MSFC	M D AGGARWAL	NAG 8 1623	2
47	ALL RUSSIAN SCI RESEARCH INST VIAM	R K BIRD	LARC	J N FRIDLYANDER	NCC 1 238	559
47	AUBURN UNIV	J R WATKINS	MSFC	J R WATKINS	NCC 8 128	4
47	AUBURN UNIV	R D NOEBE	GRC	W F GALE	NAG 3 2120	3
47	CARNEGIE - MELLON UNIV	A CHAIT	GRC	R F SEKERKA	NAG 3 1875	437
47	CARNEGIE - MELLON UNIV	H C SHAW	GSFC	P N KUMTA	NAG 5 8744	438
47	CASE WESTERN RESERVE UNIV	A CHAIT	GRC	D H MATTHIESEN	NCC 3 681	412
47	CASE WESTERN RESERVE UNIV	A CHAIT	GRC	P L TAYLOR	NCC 3 701	412
47	CASE WESTERN RESERVE UNIV	J A DICARLO	GRC	A SAYIR	NCC 3 372	410
47	CASE WESTERN RESERVE UNIV	J A POWELL	GRC	P PIROUZ	NAG 3 2131	409
47	CASE WESTERN RESERVE UNIV	J J MONTEGANI	GRC	J S TIEN	NGT 3 52350	412
47	CASE WESTERN RESERVE UNIV	J LANG	GRC	J D CRAWLEY	NCC 3 714	412
47	CASE WESTERN RESERVE UNIV	M V NATHAL	GRC	G M MICHAL	NCC 3 389	410
47	CASE WESTERN RESERVE UNIV	R V MINER	GRC	G M MICHAL	NCC 3 384	410
47	CASE WESTERN RESERVE UNIV	R V MINER	GRC	G M MICHAL	NCC 3 463	411
47	CASE WESTERN RESERVE UNIV	S BAILEY	GRC	D TABIB-AZAR	NCC 3 635	411
47	CASE WESTERN RESERVE UNIV	S LEVINE	GRC	J CAWLEY	NCC 3 404	410
47	CITY UNIV OF NY CITY COLLEGE	K J BOWLES	GRC	B LIAW	NAG 3 2259	370
47	CLARK ATLANTA UNIV	G D ROBERTS	GRC	A ABRATAN	NAS 3 27785	187
47	CLARK ATLANTA UNIV	S DUTTA	GRC	A A MINTZ	NCC 3 552	188
47	CLEMSON UNIV - CLEMSON	S A WISE	LARC	R W SCHWARTZ	NCC 1 283	461
47	CLEVELAND STATE UNIV	A VARY	GRC	J HEMANN	NCC 3 316	413
47	CLEVELAND STATE UNIV	F HURWITZ	GRC	J HEMANN	NCC 3 367	413
47	CLEVELAND STATE UNIV	H C DE GROH	GRC	D N TEWARI	NCC 3 631	415
47	CLEVELAND STATE UNIV	H KAUTZ	GRC	J HEMANN	NCC 3 581	414
47	CLEVELAND STATE UNIV	L A GREENBAUER-SENG	GRC	S N TEWARI	NCC 3 444	414
47	CLEVELAND STATE UNIV	L A GREENBAUER-SENG	GRC	S N TEWARI	NCC 3 445	414
47	CLEVELAND STATE UNIV	N NEMETH	GRC	S DUFFY	NCC 3 305	413
47	CLEVELAND STATE UNIV	R V MINER	GRC	S N TEWARI	NCC 3 393	413
47	CLEVELAND STATE UNIV	S BAILEY	GRC	M FAUR	NCC 3 606	414
47	CLEVELAND STATE UNIV	S G BAILEY	GRC	M FAUR	NAG 3 2144	413
47	CLEVELAND STATE UNIV	T K GLASGOW	GRC	S N TEWARI	NCC 3 428	414
47	CLEVELAND STATE UNIV	W MORALES	GRC	E D GRAHAM	NCC 3 573	414
47	COLLEGE OF WILLIAM AND MARY	N J JOHNSTON	LARC	R A ORWOLL	NGT 1 52200	508
47	COLORADO SCH OF MINES	S GOKOGLU	GRC	J J MOORE	NAG 3 1698	126
47	DUKE UNIV	E NELSON	GRC	R BEHRINGER	NAG 3 1917	397
47	FLORIDA A&M UNIV	B A BAUM	LARC	H GARMESTANI	NAG 1 1866	169
47	FLORIDA STATE UNIV	A CHAIT	GRC	J VINALS	NAG 3 1885	173
47	GEORGIA INST OF TECH	J R ELLIS	GRC	D TALREJA	NCC 3 711	192
47	GEORGIA INST OF TECH	P DOTY	MSFC	A M GOKHALE	NAG 8 1245	191
47	GEORGIA INST OF TECH	R S PIASCIK	LARC	A SAXENA	NAG 1 1582	188
47	GEORGIA INST OF TECH	T L ST. CLAIR	LARC	W S JOHNSON	NAG 1 1890	189
47	GEORGIA INST OF TECH	W D BREWER	LARC	J K COCHRAN	NAG 1 2245	189
47	GEORGIA INST OF TECH	W DUVAL	GRC	M F SCHATZ	NAG 3 2006	190

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
47	HARVARD UNIV	F P CHIARAMONTE	GRC	G H MCKINLEY	NAG 3 1793	286
47	JAMES MADISON UNIV	A TEATE	LARC	A A TEATE	NAG 1 1910	513
47	KENT STATE UNIV	A F HEPP	GRC	C VARUS-ABURTO	NCC 3 457	416
47	KENT STATE UNIV	M A MEADOR	GRC	R J TWIEG	NCC 3 721	416
47	LINCOLN UNIV - PA	A JOYCE	SSC	D ROYER	NAG13 47	441
47	MANCHESTER COLLEGE	C C HUNG	GRC	G W CLARK	NCC 3 601	225
47	MASSACHUSETTS INST OF TECH	J F DOWDY	MSFC	A F WITT	NGT 8 52860	307
47	MASSACHUSETTS INST OF TECH	M PURVEY	MSFC	A WITT	NAG 8 1487	302
47	MONTANA STATE UNIV	W F BROOKS	ARC	A E CRAIG	NAG 2 1323	341
47	NORFOLK STATE UNIV	E T PRIOR	LARC	J JACOBS	NAG 1 2125	514
47	NORFOLK STATE UNIV	J O SIMPSON	LARC	H R RIES	NGT 1 52175	515
47	NORTH CAROLINA A&T STATE UNIV	B J JENSEN	LARC	D O DUNN	NAG 1 1874	400
47	NORTH CAROLINA A&T STATE UNIV	I S RAJU	LARC	K N SHIVAKUMAR	NAG 1 1956	400
47	NORTH CAROLINA A&T STATE UNIV	R BHATT	GRC	J SANKAR	NAS 3 96055	402
47	NORTH CAROLINA STATE UNIV	C H LIN	JSC	M H MOHAMAD	NAG 9 1087	404
47	NORTH CAROLINA STATE UNIV	G B NORTHAM	LARC	E M AFIFY	NAG 1 1733	403
47	NORTH CAROLINA STATE UNIV	G B NORTHAM	LARC	L H LEE	NGT 1 52125	405
47	NORTH CAROLINA STATE UNIV	G B NORTHAM	LARC	W L ROBERTS	NCC 1 244	405
47	NORTH DAKOTA STATE UNIV	F SIX	MSFC	P HAMMOND	NAG 8 1007	407
47	NORTHWESTERN UNIV	A CHART	GRC	S H DAVIS	NAG 3 1737	208
47	NORTHWESTERN UNIV	B S SINGH	GRC	A Z PATASHINSKI	NAG 3 1932	209
47	NORTHWESTERN UNIV	T K GLASGOW	GRC	P W VOORHEES	NAG 3 1823	208
47	NORTHWESTERN UNIV	W P WINFREE	LARC	J D ACHENBACH	NAG 1 1813	208
47	OHIO STATE UNIV	D J ROTH	GRC	S ROKHLIN	NAS 3 97030	421
47	OHIO STATE UNIV	G D ROBERTS	GRC	A GILAT	NAG 3 2233	418
47	OHIO STATE UNIV	J W HINES	ARC	M MADOU	NCC 2 5251	421
47	OHIO STATE UNIV	T K GLASGOW	GRC	STROUD	NCC 3 555	421
47	OLD DOMINION UNIV	R A OUTLAW	GRC	R L ASH	NAG 1 1140	515
47	PENN STATE UNIV	T K GLASGOW	GRC	R M GERMAN	NAG 3 2104	443
47	PURDUE UNIV	J R REAGAN	GRC	H MINDLIN	NAG 3 2080	226
47	RENSSELAER POLYTECH INST	C R TALLEY	MSFC	H WIEDEMEIER	NAG 8 1265	388
47	RENSSELAER POLYTECH INST	E A WINSA	GRC	M E GLICKSMAN	NAS 3 25368	389
47	RENSSELAER POLYTECH INST	F MONTEGANI	GRC	M E GLICKSMAN	NGT 3 52310	389
47	RENSSELAER POLYTECH INST	G B NORTHAM	LARC	T A BLANEHET	NGT 1 52126	389
47	RENSSELAER POLYTECH INST	T D RODGERS	GRC	M B KOSS	NAG 3 2062	388
47	SAN JOSE STATE UNIV	D B LEISER	ARC	G SELVADURAY	NAG 2 848	57
47	SOUTH DAKOTA SCH OF MINES & TECH	F MONTEGANI	GRC	J KELLER	NGT 3 52312	464
47	STANFORD UNIV	S SHARMA	ARC	M CAPPELLI	NCC 2 5205	68
47	TEXAS A&M UNIV	I S SMITH	GSFC	T W STRGANAC	NAG 5 673	479
47	TUFTS UNIV	B G PENN	MSFC	P CEBE	NAG 8 1167	308
47	TUFTS UNIV	R A MILLER	GRC	M KACHANOV	NAS 3 97002	308
47	TUFTS UNIV	T K GLASGOW	GRC	C ROGERS	NCC 3 479	308
47	TUSKEGEE UNIV	M J VERILLE	GRC	A HAQUE	NCC 3 591	6
47	TUSKEGEE UNIV	R ROGOSKI	LARC	J N BHUYAN	NAG 1 1865	5
47	UNION COLLEGE	A TNETTLES	MSFC	R B BUCINELL	NAS 8 99151	396
47	UNIV HOUSTON-HOUSTON	J C BRASUNAS	GSFC	C	NAG 5 8126	484
47	UNIV HOUSTON-HOUSTON	J R WATKINS	MSFC	J R WATKINS	NCC 8 127	485
47	UNIV OF AKRON	A CHAIT	GRC	G W YOUNG	NCC 3 716	424
47	UNIV OF AKRON	A CHAIT	GRC	G YOUNG	NCC 3 494	423
47	UNIV OF AKRON	M A MEADOR	GRC	R K EBY	NCC 3 608	423
47	UNIV OF AKRON	M A MEADOR	GRC	R K EBY	NCC 3 682	423
47	UNIV OF AKRON	N N NEMETH	GRC	W BINIENDA	NCC 3 579	423
47	UNIV OF AKRON	R T BHATT	GRC	W BIBIENDA	NCC 3 615	423
47	UNIV OF ALABAMA - HUNTSVILLE	R P WHITTEN	HQ	G R KARR	NAGW 812	15
47	UNIV OF CALIFORNIA - DAVIS	T L PANONTIN	ARC	M R HILL	NCC 2 5214	87
47	UNIV OF CALIFORNIA - IRVINE	W D BREWER	LARC	E J LAVERNIA	NGT 1 52135	91
47	UNIV OF CALIFORNIA - LOS ANGELES	R ROGERS	GRC	S PUTTERMAN	NAG 3 1889	92
47	UNIV OF CALIFORNIA - SANTA BARBARA	H TRAN	ARC	F MILSTEIN	NAG 2 1148	114
47	UNIV OF COLORADO - BOULDER	B GUYNES	MSFC	S STURE	NAS 8 38779	145
47	UNIV OF CONNECTICUT	J C NEWMAN	LARC	A J MCEVILY	NAG 1 1382	151
47	UNIV OF FLORIDA	C R REGAN	LARC	D E CLARK	NAG 1 2087	178
47	UNIV OF FLORIDA	J C BRASUNAS	GSFC	R SINGH	NAG 5 7729	180
47	UNIV OF FLORIDA	P R DOTY	MSFC	T J ANDERSON	NAG 8 1243	180
47	UNIV OF FLORIDA	W J EMRICH, JR.	MSFC	S ANGHZIE	NAG 8 1251	180
47	UNIV OF ILLINOIS - CHICAGO CIRCLE	J F DOWDY	MSFC	A FRIDMAN	NGT 8 52867	218
47	UNIV OF ILLINOIS - CHICAGO CIRCLE	W DUVAL	GRC	D POULIKAKOS	NAG 3 1905	217

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
47	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	T L PANONTIN	ARC	R H DODDS	NAG 2 1031	218
47	UNIV OF MARYLAND - COLLEGE PARK	H ROSS	GRC	J QUINTIERE	NAG 3 1961	261
47	UNIV OF MASSACHUSETTS - AMHERST	G C FRALICK	GRC	S B DESU	NCC 3 672	310
47	UNIV OF MICHIGAN - ANN ARBOR	D G SICKOREZ	JSC	A D KUO	NGT 9 3	325
47	UNIV OF NORTH CAROLINA - CHAPEL HILL	R L JAFFE	ARC	J LU	NCC 2 5291	406
47	UNIV OF NORTH CAROLINA - CHAPEL HILL	R L JAFFE	ARC	O ZHOU	NCC 2 5288	406
47	UNIV OF NORTH CAROLINA - CHAPEL HILL	R L JAFFE	ARC	O ZHOU	NGT 2 52247	407
47	UNIV OF SOUTH CAROLINA-COLUMBIA	R A HAFLEY	LARC	A P REYNOLDS	NAG 1 2108	463
47	UNIV OF SOUTH CAROLINA-COLUMBIA	R S PLASCIK	LARC	A P REYNOLDS	NAG 1 2237	463
47	UNIV OF TEXAS - EL PASO	A BEAM	MSFC	J C MCCLURE	NAG 8 1645	499
47	UNIV OF TEXAS - EL PASO	E B CLARK	GRC	V P SINGH	NAG 3 1820	498
47	UNIV OF TEXAS - EL PASO	J DING	MSFC	J MCCLURE	NCC 8 137	499
47	UNIV OF TEXAS - EL PASO	L ARMENDARIZ	JSC	L E MURR	NAG 9 1171	499
47	UNIV OF UTAH	J R REEDERS	LARC	D O ADAMS	NCC 1 256	502
47	UNIV OF VERMONT	T K GLASGOW	GRC	K SQUIRES	NAG 3 1936	505
47	UNIV OF VIRGINIA	C MOORE	HQ	H N WADLEY	NAG 1 1953	521
47	UNIV OF VIRGINIA	D L DICUS	LARC	R P GANGLOFF	NAG 1 745	520
47	UNIV OF VIRGINIA	D L DICUS	LARC	R P GANGLOFF	NAG 1 2176	521
47	UNIV OF VIRGINIA	D MONTEGANI	GRC	J M HOWE	NGT 3 52315	526
47	UNIV OF VIRGINIA	R S PIASCIK	LARC	R G KELLY	NCC 1 312	526
47	UNIV OF VIRGINIA	R S PIASCIK	LARC	R P GANGLOFF	NAG 1 1841	521
47	UNIV OF VIRGINIA	T T BALES	LARC	L P TROEGER	NGT 1 52117	526
47	UNIV OF WASHINGTON	J F DOWDY	MSFC	L N BRUSH	NGT 8 52862	542
47	UNIV OF WISCONSIN - MADISON	B S SINGH	GRC	S KOU	NAG 3 1909	547
47	UNIV OF WISCONSIN - MADISON	P M DOTY	MSFC	S KOU	NAG 8 1459	551
47	UNIV OF WISCONSIN - MILWAUKEE	W M FOSTER	GRC	S V GARIMELLA	NCC 3 600	554
47	UNIV OF WYOMING	N J JOHNSTON	LARC	D F ADAMS	NAG 1 1294	555
47	VA POLYTECH INST & ST UNIV	H B DEXTTER	LARC	A C LOOS	NAG 1 1881	528
47	VA POLYTECH INST & ST UNIV	M H JASKOWIAK	GRC	W A CURTIN	NAG 3 2100	529
47	VA POLYTECH INST & ST UNIV	S A WISE	LARC	M W HYER	NCC 1 304	530
47	VANDERBILT UNIV	J BRUNSON	MSFC	R J BAYVZICK	NCC 8 101	470
47	VANDERBILT UNIV	P DOTY	MSFC	R J BAYVZICK	NCC 8 91	470
47	WASHINGTON STATE UNIV	S G BAILEY	GRC	L OLSEN	NAG 3 2044	542
49	ALCORN STATE UNIV	B ST. CYR	JSC	S ACEIL	NAG13 98005	331
49	ARIZONA STATE UNIV	N R PELLIS	JSC	B TOWE	NAG 9 815	26
49	AUBURN UNIV	D MILLER	KSC	L MOORE	NAG10 241	3
49	BALDWIN - WALLACE COLLEGE	S M NUSSBAUM	GRC	R L WALLIS	NCC 3 425	409
49	BOSTON UNIV	A NURRIDIN	HQ	S CHAKRABARTI	NGT 5 50171	284
49	BOWIE STATE UNIV	D MENCHEN	GSFC	J LANGDON	NAG 5 2941	248
49	BOWIE STATE UNIV	L GATTO	GSFC	N T WAKIM	NCC 5 201	248
49	BROWN UNIV	G A SOFFEN	GSFC	G CRAWFORD	NGT 5 91	458
49	CALIFORNIA INST OF TECH	A C DELOACH	MSFC	W L JOHNSON	NCC 8 119	50
49	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	R A MEWALDT	NAG 5 5203	46
49	CALIFORNIA INST OF TECH	S F ZPRNETZER	ARC	C KOCH	NGT 2 52240	50
49	CALIFORNIA ST	T J LLOYD	NMO	V H GARNER	NCC 7 10	52
49	CALIFORNIA STATE UNIV - LOS ANGELES	M MATEU	GSFC	R B LANDIS	NGT 5 90063	53
49	CAPITOL COLLEGE	MENCHAN	GSFC	D DRESNER	NAG 5 2942	249
49	CARNEGIE - MELLON UNIV	C J COLBERT	JSC	W WHITTAKER	NAG 9 1098	438
49	CARNEGIE - MELLON UNIV	D LAVERY	HQ	T KANADE	NAGW 1175	438
49	CARNEGIE - MELLON UNIV	F MONTEGANI	GRC	P N RUMTA	NGT 3 52326	439
49	CARNEGIE - MELLON UNIV	R AVANT	GSFC	E KROTKOV	NAG 5 4635	438
49	CARNEGIE - MELLON UNIV	R AVANT	GSFC	T EAGAN	NAG 5 4748	438
49	CASE WESTERN RESERVE UNIV	A D PLINE	GRC	S OSTRACH	NAG 3 1868	409
49	CASE WESTERN RESERVE UNIV	B S SINGH	GRC	A SAYIR	NAG 3 2238	410
49	CASE WESTERN RESERVE UNIV	B S SINGH	GRC	J A MANN JR	NCC 3 460	410
49	CASE WESTERN RESERVE UNIV	D L DIETRICH	GRC	J S T	NAG 3 2239	410
49	CASE WESTERN RESERVE UNIV	F J MONTEGANI	GRC	J R KADAMBI	NGT 3 52352	412
49	CASE WESTERN RESERVE UNIV	F J MONTEGANI	GRC	K LOPARO	NGT 3 52328	412
49	CASE WESTERN RESERVE UNIV	G MEYER	ARC	M S BRANICKY	NAG 2 1333	409
49	CASE WESTERN RESERVE UNIV	J A SALZMAN	GRC	J S T	NAG 3 1046	409
49	CASE WESTERN RESERVE UNIV	K R SACKSTEDER	GRC	J S TIEN	NCC 3 669	411
49	CASE WESTERN RESERVE UNIV	S L OLSON	GRC	J S TIEN	NCC 3 658	411
49	CLARK ATLANTA UNIV	A CHOW	MSFC	T BAI	NAG 8 1345	187
49	CLARK ATLANTA UNIV	H D ROSS	GRC	Y D YEBOAH	NCC 3 707	188
49	CLARKSON UNIV	F J MONTEGANI	GRC	P PILLAY	NGT 3 52335	372
49	CLARKSON UNIV	J KU	GSFC	N T OBOT	NAG 5 2471	371

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
49	CLEMSON UNIV - CLEMSON	B G KANKI	ARC	A K GRAMOPADHYE	NCC 2 1114	461
49	CLEMSON UNIV - CLEMSON	F P CHIARAMONTE	GRC	D M OCHTERBECK	NAG 3 2214	459
49	CLEMSON UNIV - CLEMSON	N SPECIALE	GSFC	W B LIGON	NAG 5 6030	460
49	CLEMSON UNIV - CLEMSON	R LAWRENCE	GSFC	S LASSER	NGT 5 90037	461
49	CLEMSON UNIV - CLEMSON	W CAMPBELL	GSFC	D LIGON	NAG 5 6210	460
49	CLEVELAND STATE UNIV	H E KAUTZ	GRC	J HEMANN	NCC 3 582	414
49	CLEVELAND STATE UNIV	J M MULLINS	GRC	G L KRAMERICH	NCC 3 647	415
49	COLLEGE OF WILLIAM AND MARY	T L ST. CLAIR	LARC	D M MANOS	NAG 1 2117	507
49	COLORADO SCH OF MINES	M NALL	HQ	F SCHOWENGERDT	NCCW 96	126
49	COLORADO SCH OF MINES	S A GOKOGLU	GRC	D J MOORE	NCC 3 659	126
49	CORNELL UNIV	D L DIETRICH	GRC	T AVEDISIAN	NAG 3 2224	379
49	CORNELL UNIV	F P CHIARAMONTE	GRC	J T JENKINS	NAG 3 2253	380
49	CORNELL UNIV	R O COLANTONIO	GRC	C T AVEDISIAN	NAG 3 1791	379
49	CORNELL UNIV	S KANT	GSFC	M PSIAKI	NAG 5 8788	383
49	D-Q UNIV	R LAWRENCE	GSFC	S TIWARI	NGT 5 90040	55
49	DINE COLLEGE	L ARMEDARIZ	JSC	M C BAUER	NAG 9 1172	27
49	DREXEL UNIV	B S SINGH	GRC	M A DELLAVECCHIA	NAG 3 2291	440
49	EDWARD WATERS COLLEGE	E JOHNSON	KSC	G BUCKINGHAM	NAG10 213	167
49	ELIZABETH CITY STATE UNIV	R MC KINNEY	KSC	E LAWRENCE	NAG10 252	400
49	FLA INTERNATIONAL UNIV	A MITSKEVICH	KSC	M A CENTENO	NAG10 212	168
49	FLA INTERNATIONAL UNIV	E JOHNSON	KSC	G ROIG	NAG10 211	168
49	FLORIDA A&M UNIV	E SMITH	KSC	F J FAREMAN	NAG10 239	170
49	FLORIDA A&M UNIV	E SMITH	KSC	F S HUMPHRIES	NAG10 238	170
49	FLORIDA A&M UNIV	G BUCKINGHAM	KSC	S MOBLEY	NAG10 214	169
49	FLORIDA A&M UNIV	R LAWRENCE	GSFC	F J FOREMAN	NGT 5 90018	170
49	FLORIDA A&M UNIV	T LIPPITT	KSC	R ROBERTS	NAG10 226	169
49	FLORIDA A&M UNIV	W C JONES	KSC	R G ROBERTS	NAG10 272	170
49	FLORIDA INST OF TECH	K E JACKSON	LARC	D C FLEMING	NAG 1 2061	171
49	GEORGE WASHINGTON UNIV	R L YANG	LARC	J L WHITESIDES	NAG 1 1353	158
49	GEORGE WASHINGTON UNIV	S W MAINGER	GRC	B I EDELSON	NCC 3 613	159
49	GEORGIA INST OF TECH	D H SU	MSFC	J R KOKAN	NGT 8 52830	194
49	GEORGIA INST OF TECH	F J MONTEGANI	GRC	G T ZHOU	NGT 3 52334	193
49	GEORGIA INST OF TECH	F J MONTEGANI	GRC	M LIU	NGT 3 52338	193
49	HAMPTON UNIV	D GRIFFIN	GRC	D R LYONS	NAG 3 2189	511
49	HAMPTON UNIV	I BLANKSON	GRC	M H MORGAN	NAG 3 2249	512
49	HAMPTON UNIV	J C BARNES	LARC	D A TEMPLE	NAG 1 1765	510
49	HAMPTON UNIV	S NASH-STEVENS	MSFC	D R LYONS	NAG 8 1340	512
49	HENDRIX COLLEGE	B ST. CYR	SSC	M W TEAGUE	NAG13 99016	42
49	IOWA STATE UNIV	D HUBBARD	MSFC	R K TRIVEDI	NCC 8 98	232
49	JACKSON STATE UNIV	B L WHITE	HQ	A K MOHAMED	NAGW 4092	332
49	JACKSON STATE UNIV	D F NOGA	GRC	D MITRA	NAG 3 2277	332
49	JAMES MADISON UNIV	A D LITTLE	LARC	J J MILES	NAG 1 2186	513
49	LA GUARDIA COMMUNITY COLLEGE	R LAWRENCE	GSFC	R MCLEOD	NGT 5 90009	386
49	LOUISIANA STATE UNIV - BATON ROUGE	H C NEEDLEMAN	GSFC	J P WEFEL	NAG 5 5064	243
49	MASSACHUSETTS INST OF TECH	F J MONTEGANI	GRC	G H MCKINLEY	NGT 3 52360	306
49	MASSACHUSETTS INST OF TECH	F J MONTGANI	GRC	D D CLARK	NGT 3 52358	306
49	MASSACHUSETTS INST OF TECH	G ASRAR	HQ	C WUNSCH	NGT 5 30084	306
49	MASSACHUSETTS INST OF TECH	G I JOHNSTON	HQ	E F CRAWLEY	NAGW 1335	303
49	MASSACHUSETTS INST OF TECH	H A ALDRIDGE	JSC	J P CLARKE	NAG 9 1078	303
49	MASSACHUSETTS INST OF TECH	J E BROOKER	GRC	J B HOWARD	NAG 3 1879	293
49	MASSACHUSETTS INST OF TECH	K CORKER	ARC	R J HANSMAN	NAG 2 716	291
49	MCGILL UNIV	G MEYER	ARC	P E CAIN	NAG 2 1040	558
49	MISSISSIPPI STATE UNIV	K R SACKSTEDER	GRC	R A ALTENKIRCH	NCC 3 667	334
49	MISSISSIPPI STATE UNIV	Y K CHOO	GRC	B K SONI	NAG 3 2235	333
49	MORGAN STATE UNIV	D MENCHAN	GSFC	C WHITE	NAG 5 2945	259
49	NEW MEXICO STATE UNIV - LAS CRUCES	R LAWRENCE	GSFC	P HYNES	NGT 5 90054	367
49	NEW MEXICO STATE UNIV - LAS CRUCES	W MILLER	GSFC	S HORAN	NAG 5 7520	365
49	NEW MEXICO STATE UNIV - LAS CRUCES	W MILLER	GSFC	W P OSBORNE	NAG 5 1491	364
49	NORFOLK STATE UNIV	J E GARDNER	LARC	J A JACOBS	NAG 1 1432	514
49	NORTH CAROLINA A&T STATE UNIV	A J HATCH	ARC	J C KELLY	NGT 2 52201	402
49	NORTH CAROLINA A&T STATE UNIV	J RUF	MSFC	K JONES	NAG 8 1142	401
49	NORTH CAROLINA STATE UNIV	M STOUSENERGER	GSFC	VOUK	NGT 5 70001	406
49	NORTH CAROLINA STATE UNIV	R AVANT	GSFC	F DEJARNETTE	NGT 5 40	405
49	NORTH CAROLINA STATE UNIV	S M WANDER	HQ	F R DEJARNETTE	NAGW 1331	404
49	NORTH CAROLINA STATE UNIV	V BITTINGER	HQ	F R DEJARNETTE	NGT 10030	405
49	NORTHEASTERN UNIV	M NALL	MSFC	A SACCO	NCC 8 139	307

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
49	NORTHERN ARIZONA UNIV	A R GROSS	ARC	G M BOYNE	NAG 2 6003	27
49	NORTHWESTERN UNIV	A NURRIDIN	HQ	M MATALON	NGT 5 50211	211
49	NORTHWESTERN UNIV	M S BURRELL	GSFC	M RAZEHI	NGT 5 45	211
49	NORTHWESTERN UNIV	S A GOGOKLU	GRC	B J MATKOWSKY	NAG 3 2209	209
49	OHIO STATE UNIV	J LEL	GRC	E KYEIDLER	NAG 3 2090	417
49	OHIO UNIV	R J SCHERTLER	GRC	H KRUSE	NCC 3 430	422
49	OHIO UNIV	R M HUESCHEN	LARC	F VAN GRAAS	NAG 1 1423	422
49	OHIO UNIV	W D IVANCIC	GRC	S OSTERMANN	NCC 3 680	422
49	OLD DOMINION UNIV	A E MOTLEY, III	LARC	C K AASEN	NGT 1 52201	520
49	OLD DOMINION UNIV	H C NEEDLEMAN	GSFC	G V SELBY	NAG 5 5100	518
49	OLD DOMINION UNIV	M K LOCKWOOD	LARC	R UNAL	NAG 1 2157	517
49	OLD DOMINION UNIV	N J GROOM	LARC	C P BRITCHER	NCC 1 248	518
49	OLD DOMINION UNIV	R LAWRENCE	GSFC	N BRONW-HILL	NGT 5 90043	520
49	OLD DOMINION UNIV	W T FREEMAN	LARC	P J KAUFMANN	NAG 1 2199	517
49	PENN STATE UNIV	B A MERRITT	WFF	J J BEATTY	NAG 5 5210	445
49	PENN STATE UNIV	C E JOHNSON	ARC	L R RADOVIC	NCC 2 1122	449
49	PENN STATE UNIV	E E VANLANDINGHAM	HQ	C L MERKLE	NAGW 1356	448
49	PENN STATE UNIV	F J MONTEGANI	GRC	K W WANG	NGT 3 52359	450
49	PENN STATE UNIV	F SIX	MSFC	M C SHOEMAKER	NGT 8 52813	451
49	PENN STATE UNIV	R A GOLUB	LARC	P J MORRIS	NAG 1 2208	442
49	PENN STATE UNIV	V BITTINGER	HQ	C MERKLE	NGT 10034	449
49	POLYTECH UNIV - BROOKLYN	M L TINKER	MSFC	F B LIN	NAG 8 1561	387
49	PRAIRIE VIEW A&M UNIV	L MCWHORTER	JSC	J D OLIVER	NCC 9 66	474
49	PRAIRIE VIEW A&M UNIV	P K MC CONNAUGHEY	MSFC	Z HGGUE	NAG 8 1334	473
49	PRINCETON UNIV	B S SINGH	GRC	P M CHALKIN	NAG 3 2248	356
49	PRINCETON UNIV	D SACKSTEDER	GRC	C K LAW	NCC 3 687	359
49	PRINCETON UNIV	H D ROSS	GRC	C K LAW	NCC 3 670	359
49	PRINCETON UNIV	K SACKSTEDER	GRC	C K LAW	NAG 3 1713	356
49	RENSSELAER POLYTECH INST	F SIX	MSFC	M E GLICKSMAN	NGT 8 52802	389
49	RICE UNIV	B FILES	JSC	E V BARRERA	NGT 9 23	477
49	SAN JOSE STATE UNIV	D J RASKY	ARC	J MADDREN	NAG 2 1163	57
49	SAN JOSE STATE UNIV	T L PANONTIN	ARC	M A LAMBERT	NCC 2 5305	60
49	SAVANNAH STATE UNIV	M S PLECITY	GRC	A KALU	NCC 3 362	196
49	SAVANNAH STATE UNIV	R J ACOSTA	GRC	D KALU	NAG 3 2241	196
49	SOUTH DAKOTA SCH OF MINES & TECH	C WOOLLEY	JSC	T S ARNESON	NCC 9 24	464
49	SOUTHERN UNIV & A&M COLLEGE	B B ST. CYR	SSC	A AMINI	NAG13 98003	245
49	SOUTHERN UNIV & A&M COLLEGE	S MCDANIELS	KSC	S S CHEHL	NAG10 210	245
49	SPELMAN COLLEGE	W LOVE	MSFC	E FALCONER	NAG 8 1635	196
49	STANFORD UNIV	J BUFTON	GSFC	R BYER	NAG 5 7709	65
49	STATE UNIV OF NY - ALBANY	K R SACKSTEDER	GRC	D GIVI	NAG 3 2225	390
49	STATE UNIV OF NY - BUFFALO	D A HOPKINS	GRC	P K BANERJEE	NAG 3 2035	391
49	STATE UNIV OF NY - BUFFALO	J L ROGERS	LARC	C L BLOEBAUM	NAG 1 1800	391
49	STATE UNIV OF NY - STONY BROOK	G MEYER	ARC	J S MITCHELL	NAG 2 1325	392
49	STATE UNIV OF NY - STONY BROOK	T TURNER	MSFC	D LARSON	NCC 8 100	394
49	TENNESSEE STATE UNIV	J BOYD	GRC	B ROGERS	NAG 3 1709	466
49	TEXAS A&M UNIV	C G PARRA	JSC	D R BOYLE	NCC 9 69	482
49	TEXAS A&M UNIV	D G SICKOREZ	JSC	W A HYMAN	NAG 9 931	480
49	TEXAS A&M UNIV	I S RAJU	LARC	D H ALLEN	NAG 1 1784	478
49	TEXAS A&M UNIV	N PELLIS	JSC	G COTE	NAG 9 821	480
49	TEXAS SOUTHERN UNIV	M K EWERT	JSC	J HILL	NAG 9 875	483
49	THE AMERICAN UNIV	G SOFFEN	GSFC	J J DEGNAN	NGT 5 79	162
49	THE UNIV OF CENTRAL FLORIDA	B WHITE	HQ	S RICE	NGT 90059	177
49	THE UNIV OF CENTRAL FLORIDA	D R DELA PASCUA	KSC	R HOSLER	NAG10 244	177
49	THE UNIV OF CENTRAL FLORIDA	G BUCKINGHAM	KSC	E R HOSLER	NAG10 207	176
49	THE UNIV OF CENTRAL FLORIDA	G BUCKINGHAM	KSC	E R HOSLER	NAG10 260	177
49	THE UNIV OF CENTRAL FLORIDA	J M MACKALL	HQ	J A SMITH	NGT 90159	177
49	THE UNIV OF CENTRAL FLORIDA	L GOSPER	KSC	T KOTNOUR	NGT10 52615	178
49	THE UNIV OF CENTRAL FLORIDA	O MELENDEZ	KSC	C CLAUSEN	NAG10 228	177
49	THE UNIV OF CENTRAL FLORIDA	R MCKINNEY	KSC	J SMITH	NAG10 258	177
49	TUSKEGEE UNIV	R LAWRENCE	GSFC	E J SHEPPARD	NGT 5 90033	6
49	UNIV HOUSTON-HOUSTON	E G STANSBERRY	JSC	T J HEBERT	NAG 9 1140	485
49	UNIV OF MINN	J MURATORE	JSC	T E TEZDUYAR	NAG 9 919	329
49	UNIV OF MINN	P S GREENBERG	GRC	D H PUL	NAG 3 2275	327
49	UNIV OF AKRON	C LORENZO	GRC	T T HARTLEY	NCC 3 526	423
49	UNIV OF AKRON	F J MONTEGANI	GRC	R K EBY	NGT 3 52344	424
49	UNIV OF AKRON	G R HALFORD	GRC	D C BUCHTHAL	NCC 3 545	423

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
49	UNIV OF AKRON	G R HALFORD	GRC	J PADOVAN	NAG 3 2069	423
49	UNIV OF AKRON	P S COWINGS	ARC	B C TAYLOR	NGT 2 52228	424
49	UNIV OF ALABAMA - HUNTSVILLE	J CARLISLE	MSFC	J O DIMMOCK	NAG 8 1028	14
49	UNIV OF ALABAMA - HUNTSVILLE	J WATKINS	MSFC	C A LUNDQUIST	NCC 8 132	17
49	UNIV OF ALABAMA - HUNTSVILLE	M DIJOSEPH	GSFC	D KIPPEN	NAG 5 7772	11
49	UNIV OF ALABAMA - HUNTSVILLE	S C JOHNSON	MSFC	F AMZAIEDIAN	NCC 8 146	17
49	UNIV OF ALABAMA - UNIV	C S CORNELIUS	MSFC	J S LANG	NGT 8 52817	20
49	UNIV OF ALABAMA - UNIV	D K WILSON	JSC	G P MOYNIHAN	NAG 9 921	19
49	UNIV OF ALABAMA - UNIV	D M SORLEAU	JSC	G P MOYNIHAN	NAG 9 993	19
49	UNIV OF ALABAMA - UNIV	J R SAUS	GRC	K S KRISHNAKUMAR	NAG 3 2004	18
49	UNIV OF ARIZONA	B F QUIGLEY	HQ	S C CROW	NAGW 1332	39
49	UNIV OF ARIZONA	C A HOSTETLER	LARC	J A REAGAN	NGT 1 52176	40
49	UNIV OF ARIZONA	D HUBBARD	MSFC	D R POIRIER	NCC 8 96	40
49	UNIV OF ARIZONA	D JACOBSON	MSFC	J H BURGE	NAS 8 97309	40
49	UNIV OF ARIZONA	H K TRAN	ARC	K R SRIDHAR	NCC 2 5262	40
49	UNIV OF CALIFORNIA - BERKELEY	D L URBAN	GRC	A C FERNANDEZ-PELLO	NAG 3 2026	72
49	UNIV OF CALIFORNIA - BERKELEY	G MEYER	ARC	S S SASTRY	NAG 2 1039	71
49	UNIV OF CALIFORNIA - BERKELEY	K SACKSTEDER	GRC	J CHEN	NAG 3 2221	72
49	UNIV OF CALIFORNIA - BERKELEY	S R ELLIS	ARC	L STARK	NCC 2 949	81
49	UNIV OF CALIFORNIA - DAVIS	D HARPOLD	GSFC	R SMITH	NCC 5 287	88
49	UNIV OF CALIFORNIA - DAVIS	D L DIETRICH	GRC	B D SHAW	NCC 3 683	87
49	UNIV OF CALIFORNIA - DAVIS	K R SACKSTEDER	GRC	I M KENNEDY	NCC 3 668	87
49	UNIV OF CALIFORNIA - IRVINE	B GUYNES	MSFC	F JURNAK	NAG 8 1572	90
49	UNIV OF CALIFORNIA - IRVINE	H D ROSS	GRC	D DUNN-RANKIN	NAG 3 2226	89
49	UNIV OF CALIFORNIA - IRVINE	N S JACOBSON	GRC	G S SAMUELSON	NAS 3 27094	90
49	UNIV OF CALIFORNIA - LOS ANGELES	K SACKSTEDER	GRC	O I SMITH	NCC 3 690	101
49	UNIV OF CALIFORNIA - LOS ANGELES	K W IILFF	SSC	A V BALAKRISHNAN	NCC 4 121	101
49	UNIV OF CALIFORNIA - LOS ANGELES	K W ILIFF	DFRC	A V BALAKRISHNAN	NCC 2 374	100
49	UNIV OF CALIFORNIA - SAN DIEGO	D L DIETRICH	GRC	F A WILLIAMS	NCC 3 693	112
49	UNIV OF CALIFORNIA - SAN DIEGO	D L URBAN	GRC	F A WILLIAMS	NCC 3 695	112
49	UNIV OF CALIFORNIA - SAN DIEGO	F J MONTEGANI	GRC	J KOSMATKA	NGT 3 52333	113
49	UNIV OF CALIFORNIA - SAN DIEGO	H D ROSS	GRC	F A WILLIAMS	NCC 3 407	112
49	UNIV OF CALIFORNIA - SAN DIEGO	K HIGGINBOTHAM	MSFC	R L SAH	NAG 8 1571	110
49	UNIV OF CALIFORNIA - SAN DIEGO	L KALUZIENSKI	GSFC	R E ROTHSCHILD	NAG 5 8498	109
49	UNIV OF CALIFORNIA - SANTA BARBARA	B S SINGH	GRC	T G THEORANOUS	NAG 3 2145	115
49	UNIV OF CALIFORNIA - SANTA BARBARA	H K TRAN	ARC	F MILSTEIN	NCC 2 1049	118
49	UNIV OF CALIFORNIA - SANTA BARBARA	J B MCQUILLEN	GRC	T G THEOFANOUS	NAG 3 2119	115
49	UNIV OF CALIFORNIA - SANTA BARBARA	R D GREEN	GRC	S BANERJEE	NAG 3 2255	115
49	UNIV OF CINCINNATI	S C HARTMAN	HQ	L M GALES	NAGW 1407	424
49	UNIV OF COLORADO - BOULDER	B J MOTIL	GRC	J E COLWELL	NAG 3 2267	131
49	UNIV OF COLORADO - BOULDER	C J CULBERT	JSC	L PETERSON	NAG 9 1125	144
49	UNIV OF COLORADO - BOULDER	D G SICKOREZ	JSC	L NELSON	NGT 9 22	149
49	UNIV OF COLORADO - BOULDER	E A PALMER	ARC	P G POLSON	NCC 2 904	146
49	UNIV OF COLORADO - BOULDER	M S HIRSCHBEIN	HQ	G W MORGANTHALER	NAGW 1388	144
49	UNIV OF COLORADO - BOULDER	R AVANT	GSFC	R SU	NGT 5 38	147
49	UNIV OF COLORADO - BOULDER	R FRIEDMAN	GRC	M C BRANCH	NAG 3 2220	131
49	UNIV OF COLORADO - BOULDER	S LAU	ARC	W J EMERY	NAG 2 1170	130
49	UNIV OF COLORADO - BOULDER	S STOYANOF	MSFC	W ROGERS	NAG 8 1135	144
49	UNIV OF DAYTON	F J MONTEGANI	GRC	V JAIN	NGT 3 52351	426
49	UNIV OF DAYTON	K R SACKSTEDER	GRC	F TAKAHASHI	NCC 3 675	426
49	UNIV OF DAYTON	W D MORRIS	LARC	C E EBELING	NAG 1 1327	425
49	UNIV OF DENVER	J B MCQUILLEN	GRC	J KIM	NCC 3 470	151
49	UNIV OF HAWAII AT MANOA - HONOLULU	D L URBAN	GRC	B CHAO	NCC 3 696	205
49	UNIV OF HAWAII AT MANOA - HONOLULU	J C MORAKIS	GSFC	S LIN	NAG 5 931	199
49	UNIV OF HAWAII AT MANOA - HONOLULU	S GOKOGLU	GRC	B H CHAO	NAG 3 1912	199
49	UNIV OF HAWAII AT MANOA - HONOLULU	W H MILLER	GSFC	S LIN	NAG 5 8414	203
49	UNIV OF HAWAII SYSTEM	W H MILLER	GSFC	S LIN	NAG 5 2938	206
49	UNIV OF ILLINOIS - CHICAGO CIRCLE	D L URBAN	GRC	M Y CHOI	NCC 3 665	217
49	UNIV OF ILLINOIS - CHICAGO CIRCLE	D L URBAN	GRC	Y CHOI	NCC 3 655	217
49	UNIV OF ILLINOIS - CHICAGO CIRCLE	G MEYER	ARC	R GROSSMAN	NAG 2 1172	216
49	UNIV OF ILLINOIS - CHICAGO CIRCLE	K R SACKSTEDER	GRC	D K PURI	NCC 3 688	217
49	UNIV OF ILLINOIS - CHICAGO CIRCLE	S L OLSON	GRC	I K PURI	NCC 3 694	217
49	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	F J MONTEGANI	GRC	M BRAGGS	NGT 3 52357	222
49	UNIV OF IOWA	D P STOCKER	GRC	D CHEN	NCC 3 666	236
49	UNIV OF MAINE - ORONO	A S MCGEE	HQ	D J DWYER	NAGW 4410	248
49	UNIV OF MARYLAND - COLLEGE PARK	C J CULBERT	JSC	D AKIN	NAG 9 1116	273

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
49	UNIV OF MARYLAND - COLLEGE PARK	D STOCKER	GRC	A K GUPTA	NCC 3 686	275
49	UNIV OF MARYLAND - COLLEGE PARK	H MOSELEY	GSFC	J ORLOFF	NAG 5 8375	271
49	UNIV OF MARYLAND - COLLEGE PARK	J B MCQUILLEN	GRC	J KIM	NAG 3 2206	261
49	UNIV OF MARYLAND - COLLEGE PARK	J MCQUILLEN	GRC	P KIM	NAG 3 2228	262
49	UNIV OF MARYLAND - COLLEGE PARK	R AFZAL	GSFC	D CHRISTOU	NCC 5 238	276
49	UNIV OF MARYLAND - EASTERN SHORE	D MENCHAN	WFF	M WILSON	NAG 5 8501	277
49	UNIV OF MIAMI	R LAWRENCE	GSFC	K Y FUNG	NGT 5 90048	184
49	UNIV OF MIAMI	R WALES	GSFC	O BROWN	NAS 5 30694	183
49	UNIV OF MICHIGAN - ANN ARBOR	A GONZALEZ	GRC	D E SCOTT	NAG 3 2082	316
49	UNIV OF MICHIGAN - ANN ARBOR	E S NELSON	GRC	M KAVIANY	NCC 3 723	323
49	UNIV OF MICHIGAN - ANN ARBOR	F J MONTEGANI	GRC	A D GALLIMORE	NGT 3 52349	324
49	UNIV OF MICHIGAN - ANN ARBOR	F J MONTEGANI	GRC	A GALLIMORE	NGT 3 52348	324
49	UNIV OF MICHIGAN - ANN ARBOR	F J MONTEGANI	GRC	A K GOSH	NGT 3 52331	324
49	UNIV OF MICHIGAN - ANN ARBOR	F J MONTEGANI	GRC	D PAULIDIS	NGT 3 52339	324
49	UNIV OF MICHIGAN - ANN ARBOR	F J MONTEGANI	GRC	A D GALLIMORE	NGT 3 52311	323
49	UNIV OF MICHIGAN - ANN ARBOR	J E BROOKER	GRC	J F DRISCOLL	NAG 3 1639	315
49	UNIV OF MICHIGAN - ANN ARBOR	J E BROOKER	GRC	J F DRISCOLL	NCC 3 656	323
49	UNIV OF MICHIGAN - ANN ARBOR	K R SACKSTEDER	GRC	W DAHM	NCC 3 663	323
49	UNIV OF MICHIGAN - ANN ARBOR	K SACKSTEDER	GRC	G M FAETH	NCC 3 661	323
49	UNIV OF MICHIGAN - ANN ARBOR	R LAWRENCE	GSFC	S GREGERMAN	NGT 5 90052	325
49	UNIV OF NEBRASKA - LINCOLN	J JOCHIM	JSC	S FARRITOR	NAG 9 1137	344
49	UNIV OF NEBRASKA - LINCOLN	P YEH	GSFC	K SAYOOD	NAG 5 7676	344
49	UNIV OF NEBRASKA - LINCOLN	P YEH	GSFC	K SAYOOD	NAG 5 8677	344
49	UNIV OF NEBRASKA - LINCOLN	P YEH	GSFC	K SAYWOOD	NAG 5 6025	344
49	UNIV OF NEW HAVEN	J F DOWDY	MSFC	S D BOGAN	NAG 8 1269	153
49	UNIV OF NEW MEXICO-ALBUQUERQUE	R L SHULER	JSC	J W GAMBLES	NAG 9 947	368
49	UNIV OF NEW MEXICO-ALBUQUERQUE	V BITTINGER	HQ	G K MAKI	NGT 10029	369
49	UNIV OF NEW MEXICO-ALBUQUERQUE	W H MILLER	GSFC	G MAKI	NAG 5 7586	368
49	UNIV OF NEW MEXICO-ALBUQUERQUE	W H MILLER	GSFC	G MAKI	NAG 5 8392	368
49	UNIV OF NEW MEXICO-ALBUQUERQUE	W H MILLER	GSFC	G MAKI	NAG 5 8454	368
49	UNIV OF NEW MEXICO-ALBUQUERQUE	W MILLER	GSFC	G K MAKI	NAG 5 3568	367
49	UNIV OF NOTRE DAME	J B MCQUILLEN	GRC	M J MCCREADY	NCC 3 466	230
49	UNIV OF NOTRE DAME	J L ROSEY	LARC	J E RENAUD	NAG 1 2240	229
49	UNIV OF NOTRE DAME	R FRIEDMAN	GRC	A VARMA	NAG 3 2213	229
49	UNIV OF NOTRE DAME	W H MILLER	GSFC	D COSTELLO	NAG 5 557	230
49	UNIV OF NOTRE DAME	W H MILLER	GSFC	D J COSTELLO	NAG 5 8355	230
49	UNIV OF RHODE ISLAND	D A JACQUIN	GRC	A BOSE	NAG 3 2229	458
49	UNIV OF RHODE ISLAND	L C MARTIN	GRC	O J GREGORY	NAG 3 1998	458
49	UNIV OF SOUTHERN CALIFORNIA	K R SACKSTEDER	GRC	F N EGOLFOPOLUOS	NCC 3 678	126
49	UNIV OF SOUTHERN CALIFORNIA	S A GOKOGLU	GRC	P D RONNEY	NCC 3 671	126
49	UNIV OF TEXAS - AUSTIN	K SACKSTEDER	GRC	N T CLEMENS	NCC 3 677	496
49	UNIV OF TEXAS - AUSTIN	M EWERT	JSC	D C VLIET	NAG 9 891	495
49	UNIV OF TEXAS - AUSTIN	N TENGLER	JSC	R R CRAIG	NAG 9 829	494
49	UNIV OF TEXAS - AUSTIN	P S GREENBERG	GRC	P L VARGHESE	NAG 3 2240	490
49	UNIV OF TEXAS - DALLAS	G MEYER	ARC	L R HUNT	NAG 2 1246	497
49	UNIV OF TEXAS - EL PASO	STOUTSENBERGER	GSFC	R ARROWOOD	NGT 5 70007	499
49	UNIV OF TEXAS AT BROWNSVILLE	L ARMENDARIZ	JSC	N A BASALY	NAG 9 1064	500
49	UNIV OF TOLEDO	D C JANETZKE	GRC	T G KEITH	NCC 3 719	429
49	UNIV OF TOLEDO	D MONTEGANI	GRC	D J KAPOOR	NGT 3 52342	429
49	UNIV OF TOLEDO	D SIMON	GRC	A P DHAWAN	NAG 3 2181	427
49	UNIV OF TOLEDO	P MURTHY	GRC	T G KEITH	NCC 3 524	428
49	UNIV OF TURABO	M MATEU	GSFC	B A MARRERO	NGT 5 90064	558
49	UNIV OF UTAH	G MEYER	ARC	S DEVASIA	NAG 2 1042	501
49	UNIV OF UTAH	G MEYER	ARC	S DEVASIA	NAG 2 1277	501
49	UNIV OF VIRGINIA	H A ROELANT	LARC	J BECHTA-DUGAN	NAS 1 99098	525
49	UNIV OF WISCONSIN - MADISON	J F DOWDY	MSFC	J F CRUISE	NGT 8 52865	554
49	VA POLYTECH INST & ST UNIV	G L EARLEY	LARC	L L NEU	NAG 1 2053	528
49	VA POLYTECH INST & ST UNIV	J E MAY	GRC	U VANDSBURGER	NAG 3 2093	529
49	VA POLYTECH INST & ST UNIV	R S PIASCLK	LARC	J A NEWMAN	NGT 1 52174	531
49	VANDERBILT UNIV	H WAITES	MSFC	M N SAMUELSON	NGT 8 52828	471
49	VANDERBILT UNIV	J F DOWDY	MSFC	S MAHADEVAN	NGT 8 52852	471
49	VANDERBILT UNIV	R M WEINSTOCK	GSFC	S MAHADEVAN	NGT 5 50212	471
49	WASHINGTON STATE UNIV	K R SACKSTEDER	GRC	R A ALTENKIRCH	NCC 3 564	543
49	WASHINGTON UNIV - ST	D L URBAN	GRC	R L AXELBAUM	NCC 3 697	340
49	WASHINGTON UNIV - ST	L KALUZIENSKI	GSFC	P L HINK	NAG 5 8568	340
49	WASHINGTON UNIV - ST	S A GOKOGLE	GRC	R L AXELBAUM	NAG 3 1910	337

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
49	WAYNE STATE UNIV	G MEYER	ARC	F LIN	NAG 2 1043	325
49	WAYNE STATE UNIV	G MEYER	ARC	F LIN	NAG 2 1279	325
49	WEST VIRGINIA UNIV	D S OZBURN	ARC	J R CALLAHAN	NCC 2 979	544
49	WEST VIRGINIA UNIV	J F MEYERS	LARC	J M KUHLMAN	NAG 1 1892	543
49	WICHITA STATE UNIV	D L DIETRICH	GRC	D N KOERT	NAG 3 2288	239
49	WOFFORD COLLEGE	J F DOWDY	MSFC	D M SCOTT	NAG 8 1310	463
49	WORCESTER POLYTECH INST	D P STOCKER	GRC	D C HERMANSON	NCC 3 673	312
49	WORCESTER POLYTECH INST	M BROWN	GSFC	F J LOOFT	NAG 5 7421	312
49	XAVIER UNIV - LOUISIANA	L RANDOLPH	GSFC	G BAKER	NGT 5 90084	247
49	YALE UNIV	D L URBAN	GRC	M D SMOOKE	NAG 3 2262	153
49	YALE UNIV	K SACKSTEDER	GRC	D E ROSNER	NCC 3 691	154
51	ALABAMA A&M UNIV	R C RICHMOND	MSFC	D KALE	NAG 8 1541	2
51	ARIZONA STATE UNIV	B GUYNES	MSFC	J ALLEN	NAG 8 1353	26
51	ARIZONA STATE UNIV	M A MEYER	GSFC	D HOLLOWAY	NAG 5 4892	25
51	ARIZONA STATE UNIV	M A MEYER	GSFC	P KNAUTH	NAG 5 4860	25
51	ARIZONA STATE UNIV	M MEYER	GSFC	D CRONIN	NAG 5 4131	24
51	BAYLOR COLLEGE OF MED	C F SAWIN	JSC	B R ALFORD	NCC 9 58	472
51	BAYLOR COLLEGE OF MED	K HIGGINBOTHAM	MSFC	A S RAJAN	NAG 8 1583	471
51	BAYLOR COLLEGE OF MED	M M AVERNER	ARC	B B HASHEMI	NAG 2 1357	471
51	BAYLOR COLLEGE OF MED	M M AVERNER	ARC	H J BELLEN	NAG 2 1355	471
51	BENEDICT COLLEGE	R E GRINDELAND	ARC	L LOWE	NAG 2 1164	459
51	BROOKLYN COLLEGE	D A REISS-BUBENHEIM	ARC	M P SCHREIBMAN	NCC 2 963	369
51	CALIFORNIA INST OF TECH	M A MEYER	GSFC	D YUNG	NAG 5 4022	44
51	CALIFORNIA INST OF TECH	M M AVERNER	ARC	E M DAVIDSON	NAG 2 1368	43
51	CALIFORNIA INST OF TECH	M M AVERNER	ARC	E V ROTHENBERG	NAG 2 1370	43
51	CALIFORNIA INST OF TECH	M M AVERNER	ARC	M BRONNER-FRASER	NAG 2 1346	43
51	CALIFORNIA INST OF TECH	M MEYER	GSFC	G BLAKE	NAG 5 8822	49
51	CASE WESTERN RESERVE UNIV	M M AVERNER	ARC	S J MOORMAN	NAG 2 1356	409
51	COLUMBIA UNIV	C A MITCHELL	ARC	D J WOLGEMUTH	NAG 2 1185	372
51	COLUMBIA UNIV	M M AVRENER	ARC	D J WOLGEMUTH	NAG 2 1345	372
51	CORNELL UNIV	B GUYNES	MSFC	R THORNE	NAG 8 1574	384
51	CORNELL UNIV	M MEYER	GSFC	D A USHER	NAG 5 4975	381
51	CREIGHTON UNIV	C M WINGET	ARC	B FRITZSCH	NAG 2 1003	343
51	CREIGHTON UNIV	M M AVERNER	ARC	B FRITZSCH	NAG 2 1353	343
51	DARTMOUTH COLLEGE	H K HIGGINBOTTAM	MSFC	U J GIBSON	NAG 8 1590	348
51	DELAWARE STATE UNIV	D MENCHAN	GSFC	G OFOSU	NAG 5 8240	155
51	DUKE UNIV	B GUYNES	MSFC	W E KRAUS	NAG 8 1581	398
51	DUKE UNIV	C M WINGET	ARC	P ANDERSON	NAG 2 1002	397
51	DUKE UNIV	K W CULLINGS	ARC	C CUNNINGHAM	NGT 2 52236	398
51	DUKE UNIV	M M AVERNER	ARC	G A WRAT	NAG 2 1377	397
51	DUKE UNIV	N PELLIS	JSC	W E KRAUS	NAG 9 810	398
51	EMORY UNIV	B GUYNES	MSFC	V CONTICELLO	NAG 8 1579	188
51	FLORIDA A&M UNIV	C M WINGET	ARC	M S SACHDEVA	NCC 2 1005	170
51	FLORIDA INST OF TECH	B GUYNES	MSFC	C HELMSTALTER	NAG 8 1582	172
51	FLORIDA STATE UNIV	M A MEYER	GSFC	D FRIEDMANN	NAG 5 4921	174
51	FLORIDA STATE UNIV	M MEYER	HQ	E I FRIEDMANN	NAGW 4044	175
51	FLORIDA STATE UNIV	O THIELE	GSFC	P S SMITH	NAG 5 2719	173
51	GEORGE WASHINGTON UNIV	M MEYER	GSFC	J LOGSDON	NAG 5 6978	159
51	GEORGIA STATE UNIV	P X CALLAHAN	ARC	D M RUMBAUGH	NAG 2 438	194
51	HARVARD UNIV	M A MEYER	GSFC	D D HOLLAND	NAG 5 4174	287
51	HOWARD UNIV	L PUTCHA	JSC	M W COOMES	NAG 9 977	161
51	INDIANA UNIV	A NURRIDIN	HQ	R L DUCN	NGT 5 50203	224
51	INDIANA UNIV	B GUYNES	MSFC	C M TRAYCOFF	NAG 8 1586	224
51	INDIANA UNIV - BLOOMINGTON	D A REISS-BUBENHIEM	ARC	J R ALBERTS	NCC 2 870	225
51	KANSAS STATE UNIV	A NURRIDIN	GSFC	J BRIGGS	NGT 5 50008	237
51	KANSAS STATE UNIV	R J WHITE	HQ	B S SPOONER	NAGW 2328	237
51	KANSAS STATE UNIV	W E HINDS	ARC	S K CHAPES	NAG 2 1274	236
51	KANSAS STATE UNIV	W KNOTT	KSC	D LI	NAG10 189	237
51	LOUISIANA STATE UNIV - BATON ROUGE	C M WINGET	ARC	M E MUSGRAVE	NAG 2 1020	242
51	MARSHALL UNIV	M M AVERNER	ARC	W B RHOTEN	NAG 2 1194	543
51	MASSACHUSETTS INST OF TECH	E T ENGMAN	GSFC	L FREES	NCC 8 174	306
51	MASSACHUSETTS INST OF TECH	M M AVERNER	ARC	A L DEMAINE	NAG 2 1350	292
51	MASSACHUSETTS INST OF TECH	M M AVERNER	ARC	M E MUSGRAVE	NAG 2 1375	292
51	MASSACHUSETTS INST OF TECH	N R PELLIS	JSC	L E FREED	NAG 9 836	303
51	MEDICAL COLLEGE OF WISCONSIN	W E HINDS	ARC	D A RILEY	NAG 2 956	545
51	MIAMI UNIV	C M WINGET	ARC	J Z KISS	NAG 2 1017	416

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
51	MICHIGAN STATE UNIV	B GUYNES	GSFC	L R MCCABE	NAG 8 1575	313
51	MICHIGAN STATE UNIV	G BUCKINGHAM	KSC	C CRIDDLE	NGT10 52612	314
51	MISSISSIPPI STATE UNIV	B V GUYNES	MSFC	W W WILSON	NAG 8 1566	333
51	MISSISSIPPI STATE UNIV	M POWELL	JSC	J GILBERT	NAG 9 983	333
51	MONTANA STATE UNIV	C M WINGET	ARC	B H PYLE	NAG 2 1018	341
51	MONTANA STATE UNIV	M F VASQUES	ARC	B H PYLE	NCC 2 1143	342
51	MONTANA STATE UNIV	M T FLYNN	ARC	B H PYLE	NCC 2 5277	342
51	MOREHOUSE SCH MED	D R LISKOWSKY	ARC	W W SULLIVAN	NCC 2 936	196
51	MOREHOUSE SCH MED	J D ATKINSON	JSC	G L SANFORD	NAG 9 852	196
51	MOREHOUSE SCH MED	M M AVERNER	ARC	B J KLEMENT	NAG 2 1215	195
51	MT SINAI SCH OF MED OF THE CUNY	C LLOYD	JSC	M SCHAFFLER	NAG 9 1097	387
51	MT SINAI SCH OF MED OF THE CUNY	M M AVERNER	ARC	G R HOLSTEIN	NAG 2 1191	386
51	MT SINAI SCH OF MED OF THE CUNY	N PELLIS	JSC	A MARTIN	NAG 9 816	386
51	MT SINAI SCH OF MED OF THE CUNY	W E HINDS	ARC	G R HOLSTEIN	NAG 2 946	386
51	MT SINAI SCH OF MED OF THE CUNY	D S MCKAY	JSC	J C DEBACA	NAG 9 1168	363
51	NEW MEXICO HIGHLANDS UNIV	W E HINDS	ARC	K D WALTON	NAG 2 951	387
51	NY UNIV	M L FONDA	ARC	J H WITTKKE	NCC 2 5356	28
51	NORTHERN ARIZONA UNIV	C M WINGET	ARC	F D SACK	NAG 2 1217	417
51	OHIO STATE UNIV	W KNOLL	KSC	F SACK	NAG10 179	420
51	OHIO STATE UNIV	M M AVERNER	ARC	M V DANILCHIK	NAG 2 1199	432
51	OREGON HEALTH SCIENCES UNIV	M M AVERNER	ARC	T L LOMAX	NAG 2 1341	432
51	OREGON STATE UNIV	M M AVERNER	ARC	D J COSGROVE	NAG 2 1342	442
51	PENN STATE UNIV	M M AVERNER	ARC	S G GILROY	NAG 2 1366	442
51	PENN STATE UNIV	M MEYER	GSFC	D F KASTING	NAG 5 3654	444
51	PENN STATE UNIV	R D MACELROY	ARC	S M ASSMANN	NAG 2 6026	443
51	PENN STATE UNIV	V SCHNEIDER	GSFC	D J COSGROVE	NAG 5 3707	444
51	PENN STATE UNIV	W M KNOTT	KSC	D J COSGROVE	NAG10 205	448
51	PENN STATE UNIV	C M WINGET	ARC	P Y HESTER	NAG 2 1001	226
51	PURDUE UNIV	L KARR	MSFC	J MORRE	NAG 8 1147	228
51	PURDUE UNIV	M M AVERNER	ARC	D J MORRE	NAG 2 1344	226
51	PURDUE UNIV	M MEYER	GSFC	D P FERRIS	NAG 5 4557	388
51	RENSSELAER POLYTECH INST	F SIX	MSFC	V BROWN	NAG 8 995	360
51	ROWAN UNIV	A NURRIDIN	HQ	K C TING	NGT 5 50229	361
51	RUTGERS STATE UNIV - PISCATAWAY	R WHITE	HQ	H W JAMES	NAGW 5003	362
51	RUTGERS STATE UNIV OF NJ NEW BRUNS	D A REISS-BUBENHEIM	ARC	N C PARTRIDGE	NCC 2 884	335
51	SAINT LOUIS UNIV	C M WINGET	ARC	D C HOLLEY	NCC 2 779	58
51	SAN JOSE STATE UNIV	K W CULLINGS	ARC	C A BRINEGAR	NCC 2 5311	60
51	SAN JOSE STATE UNIV	M L CORCORAN	ARC	R A FOX	NCC 2 723	58
51	SAN JOSE STATE UNIV	M L CORCORAN	ARC	R A FOX	NCC 2 1022	58
51	SAN JOSE STATE UNIV	N G DAUNTON	ARC	R A FOX	NCC 2 1096	59
51	SAN JOSE STATE UNIV	E PRITCHARD	JSC	S LEMOINE	NGT 9 13	520
51	SHENANDOAH UNIV	J D SCARGLE	ARC	R B LAUGHLIN	NCC 2 5298	69
51	STANFORD UNIV	M M AVERNER	ARC	D BERSTEIN	NAG 2 1354	62
51	STANFORD UNIV	R M WHEELER	KSC	C S CRIDDLE	NGT10 52619	70
51	STANFORD UNIV	C M WINGET	ARC	A D KRIKORIAN	NAG 2 1026	392
51	STATE UNIV OF NY - STONY BROOK	M A MEYER	GSFC	D J FLYNN	NAG 5 4691	395
51	STATE UNIV OF NY COL - PURCHASE	D K RUSSELL	HQ	G R WILSKY	NGT 8 52861	395
51	STATE UNIV OF NY COL	M M AVERNER	ARC	M A MORROW	NAG 2 1379	395
51	STATE UNIV OF NY AT NEW PALTZ	M M AVERNER	ARC	M D DELP	NAG 2 1340	478
51	TEXAS A&M UNIV	N PELLIS	JSC	G COTE	NCC 8 169	482
51	TEXAS A&M UNIV	B L GUYNES	MSFC	J G ALBRIGHT	NAG 8 1356	483
51	TEXAS CHRISTIAN UNIV	D BARTA	JSC	O A JEJLOWO	NCC 9 48	483
51	TEXAS SOUTHERN UNIV	M MEYER	GSFC	D JOYCE	NAG 5 3647	70
51	THE SCRIPPS REASERCH INST	F A GUGINOTTA	JSC	C ILIAKIS	NAG 9 1023	451
51	THOMAS JEFFERSON UNIV	A POHORILLE	ARC	E J JOHNSON	NCC 2 5011	246
51	TULANE UNIV	C M WINGET	ARC	C D FERMIN	NAG 2 999	246
51	TULANE UNIV	M M AVERNER	ARC	C A NICKERSON	NAG 2 1378	246
51	TULANE UNIV	N PELLIS	JSC	D HAMMOND	NAG 9 811	246
51	TULANE UNIV	N PELLIS	JSC	K O	NAG 9 826	246
51	UNIV HOUSTON-HOUSTON	C M WINGET	ARC	A C VAILAS	NAG 2 1089	484
51	UNIV HOUSTON-HOUSTON	R E GRINDELAND	ARC	A C VAILAS	NAG 2 1284	484
51	UNIV OF MASSACHUSETTS	M M AVERNER	ARC	Y L WANG	NAG 2 1197	308
51	UNIV OF MASSACHUSETTS	C E WADE	ARC	T P STEIN	NCC 2 1001	363
51	UNIV OF MED AND DENTISTRY	M M AVERNER	ARC	R S NOWAKOWSKI	NAG 2 1367	363
51	UNIV OF MED AND DENTISTRY	B GUYNES	MSFC	W S HU	NAG 8 1349	329
51	UNIV OF MINN	C HAVEN	JSC	M MCGINNIS	NAS 9 98138	486
51	UNIV OF TEXAS MED BRAN - GALVESTON					

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
51	UNIV OF TEXAS MED BRAN - GALVESTON	N G DAUNTON	ARC	A A PERACHIO	NGT 2 52216	486
51	UNIV OF TEXAS MED BRAN - GALVESTON	V THORNE	HQ	A A PERACHIO	NAGW 5064	486
51	UNIV OF TEXAS	W E HINDS	ARC	S T BRADY	NAG 2 962	487
51	UNIV OF TX-HLTH SCI CTR-SAN ANTONIO	W E HINDS	ARC	M L WIEDERHOLD	NAG 2 952	486
51	UNIV	B GUYNES	MSFC	A D KULKARNI	NCC 8 168	489
51	UNIV	B GUYNES	MSFC	E A GRIMM	NAG 8 1348	487
51	UNIV	B R GUYNES	MSFC	C A SAVARY	NAG 8 1347	487
51	UNIV	B V GUYNES	MSFC	E A GRIMM	NAG 8 1570	487
51	UNIV	B V GUYNES	MSFC	L P RUTZKY	NAG 8 1585	488
51	UNIV	C M WINGET	ARC	P J DUKE	NAG 2 1261	487
51	UNIV	C W LLOYD	JSC	T DEIS	NAG 9 1142	488
51	UNIV	D L PIERSON	JSC	G M WEINSTOCK	NAG 9 903	488
51	UNIV	F M SULZMAN	HQ	F W BOOTH	NAGW 3908	488
51	UNIV	F SULZMAN	HQ	D J DUKE	NAGW 4990	488
51	UNIV	M R POWELL	JSC	C FIFE	NAG 9 952	488
51	UNIV	N PELLIS	JSC	D DIMITRIJEVICH	NAG 9 813	488
51	UNIV	N PELLIS	JSC	P JOHNSON	NAG 9 834	488
51	UNIV	W E HINDS	ARC	R S KOWAKOWSKI	NAG 2 950	363
51	UNIV OF ALABAMA - BIRMINGHAM	A VILLAMIL	HQ	C E BUGG	NAGW 813	7
51	UNIV OF ALABAMA - BIRMINGHAM	B CAMPBELL	GSFC	D J WDOWIAK	NAG 5 4584	6
51	UNIV OF ALABAMA - BIRMINGHAM	D COLLINS	MSFC	L J DELUCAS	NCC 8 172	7
51	UNIV OF ALABAMA - BIRMINGHAM	M M AVERNER	ARC	V D DARLEY-USMAR	NAG 2 1348	6
51	UNIV OF ALABAMA - HUNTSVILLE	B GUYNES	MSFC	R J NAVMANN	NAG 8 1577	15
51	UNIV OF ALABAMA - HUNTSVILLE	C R TALLEY	MSFC	F ROSENBERGER	NAG 8 1354	15
51	UNIV OF ARIZONA	M A MEYER	GSFC	D F CHYBA	NAG 5 6184	34
51	UNIV OF ARIZONA	M M AVERNER	ARC	D DELUCA	NAG 2 1369	29
51	UNIV OF ARIZONA	M M AVERNER	ARC	M E TISCHER	NAG 2 1187	29
51	UNIV OF ARIZONA	R S BAIRD	JSC	K R SRIDHAR	NAG 9 923	39
51	UNIV OF ARIZONA	W E HINDS	ARC	B L MCNAUGHTON	NAG 2 949	29
51	UNIV OF ARIZONA	W M KNOTT	KSC	M T TISCHER	NAG10 134	39
51	UNIV OF CALIFORNIA - BERKELEY	M M AVERNER	ARC	D A WEISBLAT	NAG 2 1359	71
51	UNIV OF CALIFORNIA - BERKELEY	M M AVERNER	ARC	J C GERHART	NAG 2 1361	71
51	UNIV OF CALIFORNIA - BERKELEY	M M AVERNER	ARC	L J FELDMAN	NAG 2 1351	71
51	UNIV OF CALIFORNIA - DAVIS	C M WINGET	ARC	J VERNIKOS	NAG 2 840	84
51	UNIV OF CALIFORNIA - DAVIS	C M WINGET	ARC	T M HOBAN-HIGGINS	NAG 2 983	84
51	UNIV OF CALIFORNIA - DAVIS	S M HING	ARC	C A FULLER	NCC 2 970	86
51	UNIV OF CALIFORNIA - DAVIS	W E HINDS	ARC	B CHAPMAN	NAG 2 1019	84
51	UNIV OF CALIFORNIA - DAVIS	W E HINDS	ARC	C A FULLER	NAG 2 944	84
51	UNIV OF CALIFORNIA - IRVINE	B GUYNES	MSFC	A J MALKIN	NAG 8 1569	90
51	UNIV OF CALIFORNIA - IRVINE	W E HINDS	ARC	K M BALDWIN	NAG 2 942	89
51	UNIV OF CALIFORNIA - LOS ANGELES	A PLAZA	JSC	R EGGERTON	NAS 9 18773	100
51	UNIV OF CALIFORNIA - LOS ANGELES	C M WINGET	ARC	V R EDGERTON	NAG 2 717	92
51	UNIV OF CALIFORNIA - LOS ANGELES	M M AVERNER	ARC	L F HOFFMAN	NAG 2 1222	92
51	UNIV OF CALIFORNIA - LOS ANGELES	M M AVERNER	ARC	T J TIDBALL	NAG 2 1193	92
51	UNIV OF CALIFORNIA - LOS ANGELES	M MEYER	GSFC	J SCHOPF	NAG 5 6703	96
51	UNIV OF CALIFORNIA - LOS ANGELES	N PELLIS	JSC	E DIRKSEN	NAG 9 814	99
51	UNIV OF CALIFORNIA - LOS ANGELES	R E GRINDELAND	ARC	V R EDGERTON	NAG 2 1270	92
51	UNIV OF CALIFORNIA - RIVERSIDE	M MEYER	HQ	C SWITZER	NAGW 4184	102
51	UNIV OF CALIFORNIA - SAN DIEGO	B GUYNES	MSFC	J A FRANGOS	NAG 8 1589	110
51	UNIV OF CALIFORNIA - SAN DIEGO	D BLAKE	ARC	G ARRHENIUS	NCC 2 5232	112
51	UNIV OF CALIFORNIA - SAN DIEGO	M A MEYER	GSFC	D N FOMENKOVA	NAG 5 4659	105
51	UNIV OF CALIFORNIA - SAN DIEGO	M M AVERNER	ARC	L Z HOLLAND	NAG 2 1376	103
51	UNIV OF CALIFORNIA - SAN DIEGO	M MEYER	GSFC	D ARRHENIUS	NAG 5 4563	105
51	UNIV OF CALIFORNIA - SAN DIEGO	M MEYER	HQ	P L BADA	NAG 5 4546	105
51	UNIV OF CALIFORNIA - SAN FRANCISCO	C E WADE	ARC	N FREIMER	NCC 2 1009	114
51	UNIV OF CALIFORNIA - SAN FRANCISCO	C M WINGET	ARC	M H FULFORD	NAG 2 1086	113
51	UNIV OF CALIFORNIA - SAN FRANCISCO	C M WINGET	ARC	M HUGHES-FULFORD	NAG 2 981	113
51	UNIV OF CALIFORNIA - SAN FRANCISCO	N PELLIS	JSC	B BHATNAGAR	NAG 9 812	114
51	UNIV OF CALIFORNIA - SAN FRANCISCO	S B ARNAUD	ARC	E M HOLTON	NCC 2 589	114
51	UNIV OF CALIFORNIA - SANTA CRUZ	C E WADE	ARC	C L ORTIZ	NGT 2 52230	122
51	UNIV OF CALIFORNIA - SANTA CRUZ	M MEYER	GSFC	D DEAMER	NAG 5 4665	120
51	UNIV OF CHICAGO	R D MACELROY	ARC	N PATEL	NAG 2 6033	212
51	UNIV OF COLORADO - BOULDER	B GUYNES	GSFC	P TODD	NAG 8 1165	144
51	UNIV OF COLORADO - BOULDER	D REISS-BUBENHEIM	ARC	L STODIECK	NCC 2 5290	146
51	UNIV OF COLORADO - BOULDER	M H KLISS	ARC	A HOEHN	NCC 2 5258	146
51	UNIV OF COLORADO - BOULDER	M H KLISS	ARC	A HOEHN	NCC 2 5327	146

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
51	UNIV OF COLORADO - BOULDER	R T WHALEN	ARC	S J SIMSKE	NGT 2 52234	147
51	UNIV OF CONNECTICUT	B M BEBOUT	ARC	P T VISSCHER	NCC 2 1067	152
51	UNIV OF CONNECTICUT	M MEYER	HQ	J P GOGARTEN	NAGW 4572	152
51	UNIV OF DISTRICT OF COLUMBIA	E ENGMAN	GSFC	G WYCHE-MOORE	NCC 5 196	166
51	UNIV OF HAWAII AT MANOA - HONOLULU	M M AVERNER	ARC	M Q MARTINDALE	NAG 2 1374	198
51	UNIV OF IDAHO - MOSCOW	D A REIS-BUBENHEIM	ARC	M E DESANTIS	NCC 2 862	207
51	UNIV OF ILLINOIS - CHICAGO CIRCLE	M M AVERNER	ARC	A LYSAKOWSKI	NAG 2 1358	216
51	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	M MEYER	GSFC	D R WOESE	NAG 5 4500	220
51	UNIV OF IOWA	B GUYNES	MSFC	D W MURHAMMER	NAG 8 1592	235
51	UNIV OF IOWA	B GUYNES	MSFC	J WIENECK	NAG 8 1588	235
51	UNIV OF IOWA	B GUYNES	MSFC	T L PEEPLES	NAG 8 1593	235
51	UNIV OF IOWA	B GUYNES	MSFC	V G RODGERS	NAG 8 1591	235
51	UNIV OF KANSAS MEDICAL CTR	C M WINGET	ARC	J S TASH	NAG 2 1016	239
51	UNIV OF KENTUCKY	M M AVERNER	ARC	S DAUNERT	NAG 2 1363	240
51	UNIV OF MARYLAND - COLLEGE PARK	D E WALTER	GSFC	L W ADAMS	NAG 5 8678	272
51	UNIV OF MARYLAND - COLLEGE PARK	M M AVERNER	ARC	S I SUKHAREV	NAG 2 1352	261
51	UNIV OF MARYLAND BALTIMORE	B GUYNE	MSFC	K COLLINS	NAG 8 1573	278
51	UNIV OF MASSACHUSETTS - AMHERST	M MEYER	GSFC	D M IRVINE	NAG 5 3653	308
51	UNIV OF MASSACHUSETTS - AMHERST	M MEYER	GSFC	L MARGULIS	NAG 5 6701	309
51	UNIV OF MICHIGAN - ANN ARBOR	D A REISS-BUBENHEIM	ARC	K I CLARK	NCC 2 856	323
51	UNIV OF MICHIGAN - ANN ARBOR	M A MEYER	GSFC	D G WALKER	NAG 5 4770	318
51	UNIV OF MISSISSIPPI - MEDICAL CTR	M M AVERNER	ARC	J D DICKMAN	NAG 2 1204	334
51	UNIV OF MISSOURI - COLUMBIA	M M AVERNER	ARC	F W BOOTH	NAG 2 1372	335
51	UNIV OF MISSOURI - COLUMBIA	W KNOTT	KSC	H SCHAFFR	NAG10 224	336
51	UNIV OF NEVADA - RENO	M MEYER	GSFC	D A WHARTON	NAG 5 4471	346
51	UNIV OF NORTH CAROLINA - CHAPEL HILL	B GUYNES	MSFC	C W CARTER	NAG 8 1580	406
51	UNIV OF NORTH CAROLINA - CHAPEL HILL	F M SULZMAN	HQ	M YAMAUCHI	NAGW 3946	406
51	UNIV OF NORTH CAROLINA - CHAPEL HILL	M M AVERNER	ARC	M YAMAUCHI	NAG 2 1188	406
51	UNIV OF NORTH TEXAS	M MEYER	GSFC	D S BRATERMAN	NAG 5 4891	489
51	UNIV OF OREGON - EUGENE	B M BEBOUT	ARC	R W CASTEBOLZ	NCC 2 5299	436
51	UNIV OF OREGON - EUGENE	C P MCKAY	ARC	R W CASTENHOLZ	NCC 2 5306	436
51	UNIV OF PITTSBURGH	M M AVERNER	ARC	C D BALABAN	NAG 2 1186	452
51	UNIV OF PITTSBURGH	N PELLIS	JSC	J M JESSUP	NAG 9 835	454
51	UNIV OF PUERTO RICO - MAYAGUEZ	R TRAVIS	SSC	F GILBES	NAG13 99029	557
51	UNIV OF PUGET SOUND	M JASINSKI	GSFC	D PIERSON	NAG 5 6303	532
51	UNIV OF SAN FRANCISCO	C M WINGET	ARC	E V BENTON	NCC 2 893	123
51	UNIV OF SOUTH FLORIDA	S R GONDA	JSC	J L BECKER	NAG 9 648	185
51	UNIV OF SOUTHWESTERN LOUISIANA	W M KNOTT	KSC	K H HASENSTEIN	NAG10 190	247
51	UNIV OF TENNESSEE - KNOXVILLE	D JAN	JPL	G S SAYLER	NAG 9 1080	468
51	UNIV OF TENNESSEE - KNOXVILLE	G BADHWAR	JSC	D W TOWNSEND	NAG 9 858	468
51	UNIV OF TENNESSEE - KNOXVILLE	W KNOTT	KSC	R CONGES	NAG10 221	468
51	UNIV OF TEXAS - AUSTIN	M M AVERNER	ARC	S J ROUX	NAG 2 1347	490
51	UNIV OF TEXAS - AUSTIN	M M AVERNER	ARC	S M SHANKLAND	NAG 2 1349	490
51	UNIV OF TEXAS - AUSTIN	W M KNOTT	KSC	S J POUX	NAG10 202	496
51	UNIV OF TEXAS AT SAN ANTONIO	R LAWRENCE	GSFC	L R WILLIAMS	NGT 5 90012	500
51	UNIV OF TOLEDO	B GUYNES	MSFC	C A SCHALL	NAG 8 1578	428
51	UNIV OF VERMONT	T W HALSTEAD	HQ	P M LINTILHAC	NAGW 3604	506
51	UNIV OF VIRGINIA	B GUYNES	MSFC	L W CHUNG	NCC 8 171	526
51	UNIV OF WASHINGTON	T W HALSTEAD	HQ	R E CLELAND	NAGW 3755	540
51	UNIV OF WISCONSIN - MADISON	C M WINGET	ARC	B C WENTWORTH	NAG 2 1009	546
51	UNIV OF WISCONSIN - MADISON	M M AVERNER	ARC	E SCHULTZ	NAG 2 1220	546
51	UNIV OF WISCONSIN - MADISON	M M AVERNER	ARC	P H MASSON	NAG 2 1189	546
51	UNIV OF WISCONSIN - MADISON	M M AVERNER	ARC	P MASSON	NAG 2 1336	546
51	UNIV OF WISCONSIN - MADISON	R D MACELROY	ARC	P I LELKES	NAG 2 1380	547
51	UNIV OF WISCONSIN - MADISON	W M KNOTT	KSC	P WILLIAMS	NAG10 206	552
51	UNIV OF WISCONSIN - MILWAUKEE	B GUYNES	MSFC	P I LELKES	NCC 8 173	554
51	UNIV OF WISCONSIN - MILWAUKEE	J F DOWDY	MSFC	P I LELKES	NAG 9 651	554
51	UNIV OF WISCONSIN - MILWAUKEE	D WEST	GSFC	S HOWELL	NAG 5 6738	555
51	UNIV OF WYOMING	M T FLYNN	ARC	L POWERS	NCC 2 5325	504
51	UTAH STATE UNIV	R WHEELER	KSC	D L BISHOP	NGT10 52609	505
51	UTAH STATE UNIV	C P MCKAY	ARC	J A NIENOW	NCC 2 5303	198
51	VALDOSTA STATE UNIV	M M AVERNER	ARC	G K MUDAAY	NAG 2 1203	407
51	WAKE FOREST UNIV	W E HINDS	ARC	S M HIGHSTEIN	NAG 2 945	337
51	WASHINGTON UNIV - ST	A NURRIDIN	GSFC	W T PETERJOHN	NGT 5 50009	544
51	WEST VIRGINIA UNIV	M MEYER	GSFC	D M HAYES	NAG 5 6660	311
51	WOODS HOLE OCEANOGRAPHIC INST	B GUYNES	MSFC	R E APFEL	NAG 8 1351	154
51	YALE UNIV					

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
51	YALE UNIV	W E HINDS	ARC	H S KESHISHIAN	NAG 2 948	153
51	YESHIVA UNIV	M D ROSS	ARC	R S ZUKIN	NAG 2 1033	397
54	ALABAMA A&M UNIV	M H KLISS	ARC	C A BEYL	NAG 2 1175	1
54	CLARK ATLANTA UNIV	K POIMBOEUF	KSC	S RODRIGUEZ-EATON	NAG10 170	187
54	COLORADO STATE UNIV	A NURRIDIN	GSFC	G STEPHENS	NGT 5 50007	129
54	COLORADO STATE UNIV	M B EDEEN	JSC	T G SANDERS	NAG 9 1057	128
54	DILLARD UNIV	F SIX	MSFC	G ROCHON	NAG 8 1010	242
54	DUKE UNIV	M POWELL	JSC	W GERTH	NCC 9 42	398
54	FISK UNIV	D J COLLINS	ARC	M GUNASEKARAN	NAG 2 6015	465
54	FLORIDA A&M UNIV	A JOYCE	SSC	Y P HSIEH	NAG13 41	170
54	MONTANA STATE UNIV	D J DES MARAIS	ARC	D M WARD	NCC 2 1073	342
54	NORTHWEST INDIAN COLLEGE	F SIX	MSFC	D BURNS	NAG 8 1000	532
54	OHIO STATE UNIV	M M AVERNER	ARC	M L EVANS	NAG 2 1190	417
54	OREGON STATE UNIV	D PETERSON	ARC	B YODER	NCC 2 5222	435
54	PENN STATE UNIV	C E MCCASKEY	KSC	W E ANDERSON	NAG10 192	448
54	PRAIRIE VIEW A&M UNIV	J CONNOLLY	JSC	R RADHARKRISHMAN	NAG 9 778	473
54	RICE UNIV	J C GRAF	JSC	F K TITTEL	NGT 9 19	477
54	SIERRA COLLEGE	A HUSAIN	NMO	M DOBECK	NAG 7 1	61
54	SOUTHERN UNIV & A&M COLLEGE	R LEE	KSC	R DIWAN	NAG10 171	245
54	STEVENS INST OF TECH	J GRAF	JSC	G P KORFIATIS	NAG 9 1063	362
54	TEXAS SOUTHERN UNIV	D BARTA	JSC	R F WILSON	NAG 9 988	483
54	THE UNIV OF CENTRAL FLORIDA	M COLLINS	KSC	D REINHART	NAG10 198	176
54	TULANE UNIV	A JOYCE	SSC	E ENGELHAUPT	NGT13 52717	246
54	TUSKEGEE UNIV	M DONALD	JSC	C K BONSI	NAG 9 1094	5
54	UNIV OF MASSACHUSETTS	B GUYNES	JSC	W SHARTZ	NAG 8 1358	308
54	UNIV OF MINN	R TREVINO	JSC	V K VICTOR	NAG 9 1043	329
54	UNIV OF TEXAS MED BRAN - GALVESTON	D L PIERSON	JSC	M R MCGINNIS	NAG 9 901	486
54	UNIV OF TEXAS-PAN AMERICAN	S GONZALEZ	JSC	R FOWLER	NAG 9 1169	487
54	UNIV OF ALABAMA - BIRMINGHAM		KSC	J I GLASS	NAG 9 1050	7
54	UNIV OF ALABAMA - HUNTSVILLE	C M WINGET	ARC	M L LEWIS	NAG 2 985	8
54	UNIV OF ARIZONA	D L PETERSON	ARC	B D GANAPOL	NCC 2 5239	40
54	UNIV OF ARK MAIN CAMP - FAYETTEVILLE	C P MCKAY	ARC	T A KRAL	NGT 2 52243	43
54	UNIV OF CALIFORNIA - BERKELEY	D J DES MARAIS	ARC	N R PACE	NGT 2 52233	82
54	UNIV OF CALIFORNIA - SAN DIEGO	K ARRIGO	GSFC	D LUBIN	NAG 5 6414	107
54	UNIV OF CONNECTICUT	M S BURRELL	GSFC	R COLWELL	NGT 5 82	152
54	UNIV OF NEW HAMPSHIRE - DURHAM	R H THOMAS	GSFC	D SKOLE	NAG 5 4177	349
54	UNIV OF VERMONT	R H THOMAS	GSFC	D MORRISSEY	NAG 5 4138	505
54	UTAH STATE UNIV	R M WHEELER	KSC	B G BUGBEE	NAG 9 999	504
54	VANDERBILT UNIV	V THORNE	GSFC	M GOLDFARE	NAG 5 3341	469
54	VIRGINIA COMMONWEALTH UNIV	C M BUNTIN	JSC	H B CHERMSIDE	NAG 9 19541	532
54	WASHINGTON STATE UNIV	M M AVERNER	ARC	N G LEWIS	NAG 2 1198	542
55	ALABAMA A&M UNIV	M H KLISS	ARC	C A BEYL	NAG 2 1160	1
55	COLORADO STATE UNIV	D G SICKOREZ	JSC	M B STONE	NGT 9 11	129
55	COLORADO STATE UNIV	D K HALL	GSFC	G E LISTON	NAG 5 4760	127
55	CORNELL UNIV	D G SICKOREZ	JSC	J B HUNTER	NGT 9 17	386
55	CORNELL UNIV	D J BARTA	JSC	L D ALBRIGHT	NCC 9 86	384
55	CORNELL UNIV	J SAGER	KSC	C F JOHNSON	NGT10 52607	386
55	CORNELL UNIV	R WHEELER	KSC	L ALBRIGHT	NGT10 52623	386
55	HARVARD UNIV	J SAGER	KSC	M J HULLER	NGT10 52601	290
55	IOWA STATE UNIV	H LANE	JSC	D OLSEN	NCC 9 100	232
55	LOUISIANA STATE UNIV - BATON ROUGE	D J BARTA	JSC	D MUSGRAVE	NAG 9 860	243
55	LOUISIANA STATE UNIV - BATON ROUGE	W M KNOTT	KSC	M E MUSGRAVE	NAG10 139	243
55	MISSISSIPPI VALLEY STATE UNIV	G CARTER	JSC	R BAHADUR	NAG13 98004	334
55	MISSISSIPPI VALLEY STATE UNIV	R TRAVIS	JSC	R BAHADUR	NAG13 99026	334
55	OHIO STATE UNIV	G ETHERIDGE	KSC	F SACK	NAG10 263	420
55	TEXAS A&M UNIV	C T BOURLAND	JSC	R L RICHTER	NAG 9 1119	481
55	TEXAS A&M UNIV	D G SICKOREZ	JSC	R W WEAVER	NGT 9 34	482
55	TEXAS A&M UNIV	K HENDERSON	JSC	D LANGHANS	NAG 9 894	480
55	TEXAS A&M UNIV	S GOLDSTEIN	JSC	L R HOSSNER	NGT 51229	482
55	TUSKEGEE UNIV	L M ARMENDARIZ	JSC	C BONSI	NGT 9 37	6
55	UNIV OF FLORIDA	W M KNOTT	KSC	R J FERL	NAG10 145	180
55	UNIV OF MAINE - ORONO	B GRAHAM	JSC	S SADER	NAG13 98008	248
55	UNIV OF TENNESSEE - KNOXVILLE	B ST. CYR	SSC	R SCHULTZ	NAG13 55	468
55	UNIV OF VIRGINIA	R WHEELER	KSC	A MILLS	NGT10 52620	527
55	UTAH STATE UNIV	G C JAHNS	ARC	W F CAMPBELL	NCC 2 831	504
56	BAYLOR COLLEGE OF MED	C M BUNTIN	JSC	A LEBLANC	NAG 9 19404	472

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
56	BAYLOR COLLEGE OF MED	C R TALLEY	MSFC	B YOFE	NAG 8 1383	471
56	BAYLOR COLLEGE OF MED	L C SHACKELFORD	JSC	A D LE BLANC	NCC 9 61	472
56	BAYLOR COLLEGE OF MED	V THORNE	HQ	A LEBLANC	NAGW 4437	472
56	DARTMOUTH COLLEGE	D BELL	JSC	J BUCKEY	NAG 9 1088	348
56	DREXEL UNIV	J S LING	GRC	S DUBIN VMD	NAG 3 1715	440
56	DUKE UNIV	M POWELL	JSC	R VANN	NAG 9 939	398
56	HOWARD UNIV	R SRIDHAR	MSFC	R SRIDHAR	NCC 8 184	162
56	IOWA STATE UNIV	N R PELLIS	JSC	C A HEATH	NAG 9 827	232
56	MARQUETTE UNIV	C M WINGET	ARC	R H FITTS	NAG 2 636	545
56	MASSACHUSETTS INST OF TECH	B WOOLFORD	JSC	D J NEWMAN	NAG 9 1003	303
56	MASSACHUSETTS INST OF TECH	S SAWYER	SSC	C M OMAN	NAS 9 19536	304
56	MEDICAL UNIV OF SOUTH CAROLINA	B GUYNES	MSFC	A J SMOLKA	NAG 8 1385	462
56	MEHARRY MEDICAL COLLEGE	J ATKINSON	JSC	J E WILSON	NAG 9 934	465
56	MOREHOUSE COLLEGE	K KRISHEN	JSC	K DUTT	NAG 9 964	195
56	MOREHOUSE SCH MED	B L WHITE	HQ	M L THERRY-PALMER	NCCW 83	196
56	MOREHOUSE SCH MED	C SAMS	JSC	G L SANFORD	NAG 9 644	196
56	MOREHOUSE SCH MED	K KRISHEN	JSC	R SRIDARAN	NAG 9 963	196
56	MOREHOUSE SCH MED	L ARMENDARIZ	JSC	M THIERRY-PALMER	NCC 9 53	196
56	NY UNIV	F A CUCINOTTA	JSC	F J BURNS	NAG 9 1024	387
56	PENN STATE UNIV -HERSHEY MED	C F SAWIN	JSC	L I SINOWAY	NAG 9 1044	441
56	PENN STATE UNIV -HERSHEY MED	C W LLOYD	JSC	C A RAY	NAG 9 1034	441
56	PENN STATE UNIV	M KAMMAN	JSC	P CAVANAGH	NAS 9 99095	448
56	SAN FRANCISCO STATE UNIV	J E GREENLEAF	ARC	P R BARNES	NCC 2 5318	57
56	STANFORD UNIV	K A SOUZA	ARC	S A SCHENDEL	NCC 2 1010	67
56	STANFORD UNIV	R T WHALEN	ARC	S A NAPEL	NCC 2 5186	68
56	STANFORD UNIV	R W MAH	ARC	S S JEFFREY	NCC 2 5275	68
56	TEXAS A&M UNIV	D SICKOREZ	JSC	W HYMAN	NGT 9 30	482
56	TEXAS A&M UNIV	T YANG	JSC	D BRABY	NAG 9 886	480
56	TEXAS SOUTHERN UNIV	J D ATKINSON	JSC	D FADULA	NAG 9 862	483
56	TULANE UNIV	S R GONDA	JSC	T HAMMOND	NAG 8 1362	246
56	UNIV OF MASSACHUSETTS	N PELLIS	JSC	F M STEWART	NAG 9 820	308
56	UNIV OF MASSACHUSETTS	N PELLIS	JSC	P J QUESENBERRY	NAG 9 819	308
56	UNIV OF TEXAS MED BRAN - GALVESTON	A LEE	JSC	A FERRANDO	NAS 9 97147	486
56	UNIV OF TEXAS MED BRAN - GALVESTON	F M SULZMAN	HQ	C A STUART	NAGW 4032	486
56	UNIV OF TEXAS MED BRAN - GALVESTON	R BILICA	JSC	W A WASSON	NAG 9 859	486
56	UNIV OF TEXAS MED BRAN - GALVESTON	V CHOPPA	MSFC	V CHOPPA	NCC 8 170	486
56	UNIV OF TEXAS	C M SMITH	JSC	C G BLOMQVIST	NAS 9 19540	487
56	UNIV OF TEXAS	C W LLOYD	JSC	C G CRANDALL	NAG 9 1033	487
56	UNIV OF TEXAS	R J WHITE	HQ	C G BLOMQVIST	NAGW 3582	487
56	UNIV	C F SAMS	JSC	G MARSHALL	NGT 9 25	489
56	UNIV	C SAWIN	JSC	B BUTLER	NAG 9 1040	488
56	UNIV	J T JAMES	JSC	A HOLIAN	NAG 9 1144	488
56	UNIV	J VILLARREAL	JSC	P T STEIN	NAS 9 19409	363
56	UNIV	M POWELL	JSC	B BUTLER	NAG 9 940	488
56	UNIV OF ALABAMA - HUNTSVILLE	S SPEARMAN	MSFC	M BANISH	NAG 8 1476	15
56	UNIV OF ARKANSAS - LITTLE ROCK	M D ROSS	ARC	C M COMPADRE	NGT 2 52242	42
56	UNIV OF CALIFORNIA - DAVIS	J E GREENLEAF	ARC	P MOLE	NGT 2 52238	88
56	UNIV OF CALIFORNIA - DAVIS	N PELLIS	JSC	D J DURZAN	NAG 9 825	86
56	UNIV OF CALIFORNIA - SAN DIEGO	C M WINGET	ARC	R A PEDOWITZ	NCC 2 978	111
56	UNIV OF CALIFORNIA - SAN DIEGO	E M HOLTON	ARC	C ROGERS	NCC 2 1133	112
56	UNIV OF CALIFORNIA - SAN DIEGO	S G SAWYER	JSC	J B WEST	NAS 9 19434	111
56	UNIV OF CALIFORNIA - SAN FRANCISCO	D BAUMANN	JSC	T LANG	NAS 9 99055	114
56	UNIV OF FLORIDA	D A TIPTON	KSC	A H NEIMS	NAS10 96004	181
56	UNIV OF IOWA	N PELLIS	JSC	D W MURHAMMER	NAG 9 824	235
56	UNIV OF MARYLAND - COLLEGE PARK	C DOARN	GSFC	D S LIU	NAG 5 3532	263
56	UNIV OF NEW MEXICO-ALBUQUERQUE	K A SOUZA	ARC	D ALVERSON	NCC 2 5345	368
56	UNIV OF PENNSYLVANIA	C SAMS	JSC	J R HOYER	NAG 9 1047	452
56	UNIV OF PENNSYLVANIA	R J WHITE	HQ	C J LAMBERTSEN	NAGW 3628	452
56	UNIV OF PITTSBURGH	C DOARN	GSFC	R LAPORTE	NAG 5 6274	453
56	UNIV OF PITTSBURGH	J VILLAREAL	JSC	T H MONK	NAS 9 19407	454
56	UNIV OF ROCHESTER	B LONA	ARC	S R SCHWID	NCC 2 5321	397
56	UNIV OF SAN FRANCISCO	F SULZMAN	HQ	E U BENTON	NAGW 4154	123
56	UNIV OF VIRGINIA	N PELLIS	JSC	L K CHUNG	NAG 9 823	525
56	UNIV OF WASHINGTON	B LUNA	ARC	J BOWEN	NCC 2 5322	540
56	UNIV OF WASHINGTON	D HARM	JSC	D E PARKER	NAG 9 958	539
56	VANDERBILT UNIV	F M SULZMAN	HQ	D ROBERTSON	NAGW 3873	470

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
56	VIRGINIA COMMONWEALTH UNIV	A LEE	JSC	D ECKBURG	NAS 9 19539	531
59	ALABAMA A&M UNIV	B J COLLINS	ARC	P G KALE	NAG 2 1130	1
59	ARIZONA STATE UNIV	D G SICKCOREZ	JSC	R D SEIDLER	NGT 9 21	27
59	ARIZONA STATE UNIV	J N CUZZI	ARC	J D FARMER	NCC 2 1051	26
59	BAYLOR COLLEGE OF MED	B CARPENTER	GSFC	D YOFFE	NAG 5 3712	471
59	BAYLOR COLLEGE OF MED	F A CUCINOTTA	JSC	L E PETERSON	NAG 9 1052	472
59	BAYLOR COLLEGE OF MED	L SHACKE	JSC	A LEBLANC	NAG 9 1133	472
59	BOSTON COLLEGE	L KARR	MSFC	D KIRSCHNER	NAG 8 1304	280
59	BOSTON UNIV	V SCHNEIDER	GSFC	M F HOLICK	NAG 5 3991	281
59	BRANDEIS UNIV	C W LLOYD	JSC	J LACKNER	NAG 9 1037	284
59	BRANDEIS UNIV	C W LLOYD	JSC	J LACKNER	NAG 9 1038	285
59	BRANDEIS UNIV	V SCHNEIDER	GSFC	D LACKNER	NAG 5 6100	284
59	BRANDEIS UNIV	V SCHNEIDER	GSFC	J LACKNER	NAG 5 6056	284
59	COLORADO STATE UNIV	R A GRYMES	ARC	G R COULTER	NCC 2 907	129
59	COLORADO STATE UNIV	R A GRYMES	ARC	G R COULTER	NCC 2 1099	129
59	COLORADO STATE UNIV	S SCHIMMERLING	GSFC	C A WALDREN	NAG 5 3768	127
59	COLORADO STATE UNIV	W M KNOTT	KSC	A N REDDY	NAG10 234	128
59	COPPIN STATE COLLEGE	J F DOWDY	MSFC	M E OWENS	NAG 8 1315	249
59	CORNELL UNIV	C T BOURLAND	JSC	C J GREENWALT	NAG 9 1118	384
59	CORNELL UNIV	J SAGER	KSC	L ALBRIGHT	NGT10 52600	386
59	CORNELL UNIV	M AVERNER	GSFC	J B HUNTER	NAG 5 4222	380
59	CORNELL UNIV	M P AVERNER	GSFC	R WAYNE	NAG 5 6437	382
59	DARTMOUTH COLLEGE	L K NEWKIRK	JSC	J C BUCKEY	NAS 9 19572	348
59	DUKE UNIV	V SCHNEIDER	GSFC	R D VANN	NAG 5 4491	397
59	EAST TENNESSEE STATE UNIV	B GUYNES	MSFC	L WILSON	NAG 8 1375	464
59	ESTRN VA MED SCH-ESTRN VA MED AUTH	W M KNOTT	KSC	D SPANGENBERG	NAG10 178	508
59	GEORGE WASHINGTON UNIV	P E O'NEILL	GSFC	S HUANG	NAG 5 5160	158
59	GEORGE WASHINGTON UNIV	T K SCOTT	HQ	S HUANG	NAGW 4516	159
59	GEORGE WASHINGTON UNIV	V R THORNE	HQ	H R HERTZFELD	NAGW 4646	159
59	GEORGETOWN UNIV	B SIEGEL	GSFC	T JORGENSEN	NAG 5 6356	160
59	GEORGETOWN UNIV	F M SULZMAN	HQ	M MOSCOVITCH	NAGW 4395	160
59	GEORGETOWN UNIV	W SCHIMMERLING	GSFC	D MOSCOVITCH	NAG 5 6343	160
59	GEORGIA STATE UNIV	R E GRINDELAND	ARC	D A WASHBURN	NAG 2 1271	194
59	HARVARD UNIV	T E BUNCH	ARC	A H KNOLL	NCC 2 1053	290
59	HARVARD UNIV	W J WAGNER	GSFC	D H PARKINSON	NAG 5 6554	288
59	HUNTER COLL OF THE CITY UNIV OF NY	M SHEPANAK	GSFC	T G BROMAGE	NAG 5 6606	386
59	INDIANA UNIV	V SCHNEIDER	GSFC	D DUNCAN	NAG 5 4917	224
59	IOWA STATE UNIV	L P CHAMBERS	GSFC	M POTTER	NAG 5 6353	231
59	JOHNS HOPKINS UNIV	J A KAYE	GSFC	J YEE	NAG 5 7552	254
59	KANSAS STATE UNIV	T SCOTT	GSFC	G CONRAD	NAG 5 3885	236
59	KANSAS STATE UNIV	W M KNOTT	KSC	J A GUIKEMA	NAG10 142	237
59	LOMA LINDA UNIV	W SCHIMMERLING	GSFC	D NELSON	NCC 5 236	55
59	LOUISIANA STATE UNIV - BATON ROUGE	D L DEVINCENZI	ARC	J R BATTISTA	NAG 2 1320	242
59	LOUISIANA STATE UNIV - BATON ROUGE	V S SCHNEIDER	GSFC	M A MUSGRAVE	NAG 5 3756	242
59	MARQUETTE UNIV	R E GRINDELAND	ARC	R H FITTS	NAG 2 1267	545
59	MARQUETTE UNIV	R SULZMAN	HQ	R H FITTS	NAGW 4376	545
59	MARQUETTE UNIV	V ELLERBEE	JSC	R H FITTS	NAS 9 18768	545
59	MARQUETTE UNIV	V SCHNEIDER	GSFC	R FITTS	NAG 5 6058	545
59	MASSACHUSETTS INST OF TECH	J DETROVE	JSC	C M OMAN	NAG 9 1004	303
59	MASSACHUSETTS INST OF TECH	M AVERNER	GSFC	D J NEWMAN	NAG 5 4928	298
59	MASSACHUSETTS INST OF TECH	R J WHITE	HQ	C M OMAN	NAGW 4333	303
59	MASSACHUSETTS INST OF TECH	V SCHNEIDER	GSFC	R COHEN	NAG 5 4989	298
59	MISSISSIPPI GULF COAST COMM COLLEGE	A JOYCE	SSC	J BRYAN	NAG13 99015	332
59	MISSISSIPPI STATE UNIV	D CARTER	MSFC	W WILSON	NAG 8 965	333
59	MONTANA STATE UNIV	G FOGLEMAN	GSFC	G A MCFETERS	NAG 5 3750	341
59	MOREHOUSE SCH MED	B LUNA	ARC	G L SANFORD	NGT 2 52239	196
59	MOREHOUSE SCH MED	B LUNA	ARC	G SONNENFELD	NAG 2 6029	196
59	MT SINAI SCH OF MED OF THE CUNY	V SCHNEIDER	GSFC	H KAUFMANN	NAG 5 6276	386
59	NATIONAL HISPANIC UNIV	B LUNA	ARC	M C VIRAMONTES	NAG 2 6013	55
59	NEW MEXICO STATE UNIV - LAS CRUCES	G C FOGLEMAN	HQ	G A EICEMAN	NAGW 4558	366
59	NEW MEXICO STATE UNIV - LAS CRUCES	G FOGLEMAN	GSFC	D EICEMAN	NAG 5 6193	365
59	NORTH CAROLINA STATE UNIV	D P LISKOWSKY	GSFC	E DAVIES	NAG 5 3743	403
59	NORTHEASTERN OHIO UNIV COL OF MED	M M AVERNER	GSFC	W J LANDIS	NAG 5 7789	416
59	OGALA LAKOTA COLLEGE	T GULL	GSFC	D J DEMAREST	NAG 9 967	464
59	OHIO STATE UNIV	G FOGLEMAN	GSFC	D WOODS	NAG 5 6344	419
59	OHIO STATE UNIV	J DETROVE	JSC	D D WOODS	NAG 9 1005	420

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
59	OHIO STATE UNIV	J M ORASANU	ARC	P J SMITH	NCC 2 830	421
59	OHIO STATE UNIV	T SCOTT	GSFC	F SACK	NAG 5 3774	418
59	OHIO UNIV	J M ORASANU	ARC	C E MCCOY	NCC 2 827	422
59	OREGON STATE UNIV	T SCOTT	GSFC	D LOMAX	NAG 5 6373	433
59	PENN STATE UNIV	C LLOYD	JSC	J A PAWELCZYK	NAG 9 1173	448
59	PENN STATE UNIV	K E NEWKIRK	JSC	D A PAWELCZYK	NAS 9 19573	448
59	PENN STATE UNIV	M AVERNER	GSFC	N V FEDOROFF	NAG 5 3970	444
59	PENN STATE UNIV	M AVERNER	GSFC	R CYR	NAG 5 4840	444
59	PENN STATE UNIV	P PILEWSKIE	ARC	H OHMOTO	NCC 2 1057	449
59	PONCE SCH OF MED	H L D'ANTONI	ARC	J L MATTA	NAG 2 1149	556
59	PRINCETON UNIV	S SAWYER	JSC	T J SHORS	NAS 9 19519	359
59	RICE UNIV	L CHAMBERS	GSFC	L MCINTIRE	NAG 5 4072	475
59	RUTGERS STATE U OF NJ COOK CAMPUS	G FOGLEMAN	GSFC	H JANES	NAG 5 6011	362
59	SAINT LOUIS UNIV	T SCOTT	GSFC	N PARTRIDGE	NAG 5 4538	335
59	SAN DIEGO STATE UNIV	V SCHNEIDER	GSFC	D RAYLE	NAG 5 6060	56
59	SAN FRANCISCO STATE UNIV	A PLAZA	JSC	D PALMER	NAS 9 19410	57
59	SAN FRANCISCO STATE UNIV	G C CARLE	ARC	J B ORENBERG	NCC 2 808	57
59	SAN FRANCISCO STATE UNIV	H L D'ANTONI	ARC	E P METZGER	NCC 2 5344	60
59	SAN JOSE STATE UNIV	K C SABLAN	ARC	A RODRIGUEA	NCC 2 960	58
59	SAN JOSE STATE UNIV	G J FISHMAN	MSFC	J G STACY	NAG 8 1625	245
59	SOUTHERN UNIV & A&M COLLEGE	D O FRAIZER	MSFC	O SCRIVEN	NCC 8 194	197
59	SPELMAN COLLEGE	A JANETOS	GSFC	P MATSON	NAG 5 6615	65
59	STANFORD UNIV	R T WHALEN	ARC	CARTER	NGT 2 52246	70
59	STATE UNIV OF NY - ALBANY	K HIGGINBOTHAN	MSFC	W M GIBSON	NCC 8 125	390
59	STATE UNIV OF NY - STONY BROOK	V SCHNEIDER	GSFC	C T RUBIN	NAG 5 3950	392
59	STEVENS INST OF TECH	B SIEGEL	HQ	D DONSKOY	NAG 5 6116	362
59	STEVENS INST OF TECH	G SCHMIDT	HQ	D M DONSKOY	NAGW 4586	362
59	TENNESSEE TECHNOLOGICAL UNIV	D HATHAWAY	MSFC	S HAN	NAG 8 1631	466
59	TEXAS A&M UNIV	J MAIDA	JSC	D KERK	NAG 9 889	480
59	TEXAS A&M UNIV	M A SHEPANER	GSFC	M D DELP	NAG 5 3754	479
59	THE SCRIPPS REASERCH INST	L J CAROFF	ARC	R GHADIRI	NCC 2 1055	71
59	THE UNIV OF CENTRAL FLORIDA	J SAGER	KSC	R W JOHNSON	NAG10 147	176
59	TUSKEGEE UNIV	R WHEELER	KSC	D MARTLEY	NAG10 209	5
59	UNIV OF MED AND DENTISTRY	J VILLARREAL	JSC	T P STEIN	NAS 9 18775	363
59	UNIV OF MINN	J D COLLIER	GSFC	V S KOSCHEVEV	NAG 5 3533	327
59	UNIV OF TEXAS MED BRAN - GALVESTON	T SCOTT	HQ	A PERACHIO	NAG 5 6009	486
59	UNIV OF TEXAS	A M LEE	JSC	C G BLOMQVIST	NAS 9 19429	487
59	UNIV OF TEXAS	L P CHAMBERS	GSFC	G BLOMQVIST	NAG 5 6317	487
59	UNIV OF TEXAS	V SCHNEIDER	GSFC	B LEVINE	NAG 5 4846	487
59	UNIV OF TX-HLTH SCI CTR-SAN ANTONIO	W M KNOTT	KSC	M L WIEDERHOLD	NAG10 180	486
59	UNIV	A PLAZA	JSC	G WEINSTOCK	NAS 9 19439	488
59	UNIV	M AVERNER	GSFC	D ROWE	NAG 5 6316	151
59	UNIV	M AVERNER	GSFC	E DURBAN	NAG 5 4710	488
59	UNIV	V SCHNEIDER	GSFC	B BUTLER	NAG 5 6176	488
59	UNIV OF ALABAMA - BIRMINGHAM	B GUYNES	GSFC	L J DELUCAS	NAG 8 1146	7
59	UNIV OF ALABAMA - BIRMINGHAM	D K COLLINS	MSFC	L J DELUCAS	NAS 8 40189	7
59	UNIV OF ALABAMA - BIRMINGHAM	G FOGLEMAN	GSFC	D CASSELL	NAG 5 6287	6
59	UNIV OF ALABAMA - BIRMINGHAM	S LAMBIH	MSFC	L DELUCUS	NCC 8 126	7
59	UNIV OF ALABAMA - HUNTSVILLE	P M DOTY	MSFC	M T ZUGRAV	NAG 8 1456	15
59	UNIV OF ALABAMA - HUNTSVILLE	P M DOTY	MSFC	R J NAUMANN	NAG 8 1464	15
59	UNIV OF ALABAMA - HUNTSVILLE	S SPEARMAN	MSFC	F ROSENBERGER	NCC 8 99	16
59	UNIV OF ALABAMA - UNIV	D G SICKOREZ	JSC	B A TODD	NAG 9 981	19
59	UNIV OF ARIZONA	J L PRIVETTE	GSFC	A HUETE	NAG 5 7470	36
59	UNIV OF ARIZONA	M AVERNER	GSFC	J L CUELLO	NAG 5 4456	33
59	UNIV OF ARIZONA	R WHEELER	KSC	J L CUELLO	NAG10 255	39
59	UNIV OF CALIFORNIA - BERKELEY	A C JANETOS	GSFC	T L BENNING	NAG 5 6593	76
59	UNIV OF CALIFORNIA - BERKELEY	T K SCOTT	GSFC	D FELDMAN	NAG 5 6347	75
59	UNIV OF CALIFORNIA - DAVIS	R E GRINDELAND	ARC	C A FULLER	NAG 2 1265	84
59	UNIV OF CALIFORNIA - DAVIS	V SCHNEIDER	GSFC	B HORWITZ	NAG 5 3959	85
59	UNIV OF CALIFORNIA - DAVIS	V SCHNEIDER	GSFC	C A FULLER	NAG 5 4320	85
59	UNIV OF CALIFORNIA - DAVIS	V SCHNEIDER	GSFC	D MURAKAMI	NAG 5 6440	85
59	UNIV OF CALIFORNIA - DAVIS	V SCHNEIDER	HQ	D M MURAKAMI	NAGW 4552	86
59	UNIV OF CALIFORNIA - IRVINE	A POHORILLE	ARC	J K LANYI	NCC 2 1070	91
59	UNIV OF CALIFORNIA - IRVINE	A POHORILLE	ARC	J K LANYI	NCC 2 5333	91
59	UNIV OF CALIFORNIA - IRVINE	F M SULZMAN	GSFC	G ADAMS	NAG 5 3741	89
59	UNIV OF CALIFORNIA - IRVINE	S ROBBINS	MSFC	A MCPHERSON	NAS 8 39763	90

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
59	UNIV OF CALIFORNIA - IRVINE	V SCHNEIDER	GSFC	R PURDY	NAG 5 4040	90
59	UNIV OF CALIFORNIA - LOS ANGELES	A L LEE	JSC	C MARKHAM	NAS 9 19400	100
59	UNIV OF CALIFORNIA - LOS ANGELES	J P CONNLLY	ARC	P S COWINGS	NCC 2 804	100
59	UNIV OF CALIFORNIA - LOS ANGELES	M AVERNER	GSFC	A D GRINNELL	NAG 5 3964	94
59	UNIV OF CALIFORNIA - LOS ANGELES	M C GRENISEN	JSC	R EDGERTON	NAG 9 970	99
59	UNIV OF CALIFORNIA - LOS ANGELES	T E BUNCH	ARC	B RUNNEGAR	NCC 2 1050	101
59	UNIV OF CALIFORNIA - LOS ANGELES	V SCHNEIDER	GSFC	J TIDBALL	NAG 5 4837	95
59	UNIV OF CALIFORNIA - SAN DIEGO	F M SULZMAN	GSFC	K PRISK	NAG 5 3742	104
59	UNIV OF CALIFORNIA - SAN DIEGO	F SULZMAN	HQ	G K PRISK	NAGW 4372	110
59	UNIV OF CALIFORNIA - SAN DIEGO	G ASRAR	GSFC	R GOERICKE	NGT 5 30122	113
59	UNIV OF CALIFORNIA - SAN DIEGO	M AVERNER	GSFC	J A FRANGOS	NAG 5 4648	105
59	UNIV OF CALIFORNIA - SAN DIEGO	N PELLIS	JSC	J A FRANGO	NAG 9 837	110
59	UNIV OF CALIFORNIA - SAN DIEGO	R J WHITE	HQ	S L MILLER	NAGW 2881	110
59	UNIV OF CALIFORNIA - SAN DIEGO	S MCCULLUM	JSC	J B WEST	NAS 9 98124	111
59	UNIV OF CALIFORNIA - SAN DIEGO	V ELLERBE	JSC	J B WEST	NAS 9 18764	111
59	UNIV OF CALIFORNIA - SAN FRANCISCO	J VILLARREAL	JSC	D KANAS	NAS 9 19411	114
59	UNIV OF CALIFORNIA - SAN FRANCISCO	M H NEW	ARC	M A WILSON	NCC 2 5295	114
59	UNIV OF CALIFORNIA - SAN FRANCISCO	V SCHNEIDER	GSFC	D GLOBUS	NAG 5 6374	114
59	UNIV OF CALIFORNIA - SANTA CRUZ	M FONDA	ARC	J PEARSE	NCC 2 5351	122
59	UNIV OF COLORADO - BOULDER	J CUZZI	ARC	B JAKOSKI	NCC 2 1052	146
59	UNIV OF COLORADO - BOULDER	M AVERNER	GSFC	A STAEHELIN	NAG 5 3967	133
59	UNIV OF COLORADO - BOULDER	S J LAMMING	MSFC	G MORGENTHALER	NCC 8 131	146
59	UNIV OF COLORADO - BOULDER	V SCHNEIDER	GSFC	W RAMIREZ	NAG 5 6006	137
59	UNIV OF COLORADO - BOULDER	W A ORAN	HQ	M LUTTGES	NAGW 1197	144
59	UNIV OF CONNECTICUT	G ETHERAGE	GSFC	Y LI	NAG10 246	152
59	UNIV OF FLORIDA	M AVERNER	GSFC	R NARAYANAN	NAG 5 4587	179
59	UNIV OF HOUSTON - CLEAR LAKE	M POWELL	JSC	R S CHHIKARA	NAG 9 1083	489
59	UNIV OF HOUSTON - DOWNTOWN	D G SICKOREZ	JSC	P A SMITH	NAG 9 980	489
59	UNIV OF ILLINOIS - CHICAGO CIRCLE	T SCOTT	GSFC	A LYSAKOWSKI	NAG 5 4593	217
59	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J R ROGERS	MSFC	C F ZOKOSKI	NAG 8 1376	221
59	UNIV OF KENTUCKY	G FOGLEMAN	GSFC	C A GRIMES	NAG 5 4594	240
59	UNIV OF MARYLAND - COLLEGE PARK	L P CHAMBERS	GSFC	S I SUKHAVREV	NAG 5 6526	268
59	UNIV OF MARYLAND - COLLEGE PARK	V CEVENINI	GSFC	D S BARAS	NCC 5 227	276
59	UNIV OF MARYLAND BALTIMORE COUNTY	L CHAMBERS	HQ	B RABIN	NAG 5 6093	278
59	UNIV OF MICHIGAN - ANN ARBOR	G FOGLEMAN	GSFC	K NAJAFI	NAG 5 4916	319
59	UNIV OF MICHIGAN - ANN ARBOR	M E FREY	GSFC	G L AMIDON	NAG 5 3874	317
59	UNIV OF MISSISSIPPI - MEDICAL CTR	T K SCOTT	HQ	J I DICKMAN	NAGW 4507	334
59	UNIV OF MISSISSIPPI - MEDICAL CTR	V SCHNEIDER	GSFC	D ANGELAKI	NAG 5 3884	334
59	UNIV OF MISSOURI - COLUMBIA	M AVERNER	GSFC	T A JONES	NAG 5 4607	335
59	UNIV OF NEW MEXICO-ALBUQUERQUE	J SAGER	KSC	G LOPEZ	NAG10 160	368
59	UNIV OF NORTH TEXAS HLTH SCI	V SCHNEIDER	GSFC	M SMITH	NAG 5 3744	489
59	UNIV OF NORTH TEXAS HLTH SCI	V SCHNEIDER	GSFC	P B RAVEN	NAG 5 4668	489
59	UNIV OF NORTH TEXAS	D K RUSSELL	HQ	P B RAVEN	NGT 70409	489
59	UNIV OF NORTHERN IOWA	T SCOTT	GSFC	D J WIENS	NAG 5 3751	236
59	UNIV OF PENNSYLVANIA	C W LLOYD	JSC	H VAN D	NAG 9 1161	452
59	UNIV OF PENNSYLVANIA	F SULZMAN	HQ	C J LAMBERTSEN	NAGW 4359	452
59	UNIV OF PENNSYLVANIA	J ELLISON	GSFC	N I BADLER	NAG 5 3990	452
59	UNIV OF PENNSYLVANIA	L C CHAMBERS	GSFC	J LAMBERTSEN	NAG 5 4274	452
59	UNIV OF PENNSYLVANIA	L CHAMBERS	GSFC	C LAMBERTSEN	NAG 5 6200	452
59	UNIV OF PENNSYLVANIA	N PELLIS	JSC	P S AYYASWAMY	NAG 9 817	452
59	UNIV OF PITTSBURGH	C W LLOYD	JSC	T H MONK	NAG 9 1036	454
59	UNIV OF PUERTO RICO - MAYAGUEZ	J SAGER	KSC	G COLON	NAG10 236	557
59	UNIV OF PUERTO RICO - MAYAGUEZ	J SAYER	KSC	G COLON	NAG10 257	557
59	UNIV OF ROCHESTER	C TALLEY	MSFC	D WU	NAG 8 1382	396
59	UNIV OF ROCHESTER	J D BOHLIN	HQ	T W CLARKSON	NAGW 2356	396
59	UNIV OF SOUTH FLORIDA	D K RUSSELL	HQ	D V LIM	NGT 70375	185
59	UNIV OF TENNESSEE - KNOXVILLE	F A CUCINOTTA	JSC	D L STEPHENS	NAG 9 1123	468
59	UNIV OF TENNESSEE - KNOXVILLE	G BADHWAR	JSC	J S NEAL	NAG 9 1121	468
59	UNIV OF TENNESSEE - MEMPHIS	K NEWKIRK	JSC	A DUNLAP	NAS 9 19571	469
59	UNIV OF TEXAS - AUSTIN	T SCOTT	GSFC	S J ROUX	NAG 5 3887	492
59	UNIV OF TEXAS - EL PASO	F HORZ	JSC	L E MURR	NAG 9 1100	499
59	UNIV OF UTAH	J W FISHER	ARC	J S LIGHTLY	NCC 2 851	502
59	UNIV OF UTAH	L CHAMBERS	GSFC	K SHARP	NAG 5 3784	501
59	UNIV OF UTAH	W SHIMMERLING	GSFC	R WARTERS	NAG 5 4452	501
59	UNIV OF WASHINGTON	F SULZMAN	HQ	D E PARKER	NAGW 4393	540
59	UNIV OF WASHINGTON	T SCOTT	GSFC	D CLELAND	NAG 5 6328	536

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
59	UNIV OF WASHINGTON	V SCHNEIDER	GSFC	D E PARKER	NAG 5 4074	535
59	UNIV OF WEST FLORIDA	W PALOSKI	JSC	F GUEDRY	NCC 9 37	186
59	UNIV OF WISCONSIN - MADISON	C LLYOD	KSC	D SCHOELLER	NAG 9 1039	552
59	UNIV OF WISCONSIN - MADISON	J DETROVE	JSC	B S CALDWELL	NAG 9 1008	551
59	UNIV OF WISCONSIN - MADISON	T SCOTT	GSFC	P MASSON	NAG 5 4596	548
59	UTAH STATE UNIV	R WHEELER	KSC	P GROSSEL	NGT10 52617	505
59	VANDERBILT UNIV	A LEE	JSC	D ROBERTSON	NAS 9 19483	470
59	VANDERBILT UNIV	A NURRIDIN	HQ	M GOLDBARB	NGT 5 50180	471
59	WAKE FOREST UNIV	V SCHNEIDER	GSFC	R P HOLMES	NAG 5 3968	407
59	WASHINGTON STATE UNIV	M AVERNER	GSFC	B POOVAIAH	NAG 5 4841	543
59	WASHINGTON UNIV - ST	C SAWIN	GSFC	D E ANGELAKI	NAG 5 8194	340
59	WRIGHT STATE UNIV	A NURRIDIN	HQ	S R MOHLER	NGT 5 30091	429
59	WRIGHT STATE UNIV	F D EVANS	HQ	S MOHLER	NGT36 24790	429
59	YALE UNIV	V SCHNEIDER	GSFC	T MCCARTHY	NAG 5 6054	153
61	CLEVELAND STATE UNIV	B GUYNES	MSFC	J M BELOVICH	NAG 8 1584	413
61	MOREHOUSE COLLEGE	R RICHMOND	MSFC	G L SANFORD	NAG 8 1636	195
61	OLD DOMINION UNIV	A T POPE	LARC	F G FREEMAN	NGT 1 52219	520
61	OLD DOMINION UNIV	A T POPE	LARC	M W SCEBA	NGT 1 52220	520
61	RUTGERS STATE UNIV OF NJ NEW BRUNS	J B HARTLEY	GSFC	Z KOLBER	NAS 5 99138	362
61	STANFORD UNIV	R W REMINGTON	ARC	J E GABRIELI	NCC 2 5261	68
61	UNIV OF PITTSBURGH	B GUYNES	MSFC	X L WU	NAG 8 1587	454
61	UNIV OF TENNESSEE - KNOXVILLE	A NURRIDIN	HQ	G SAYLER	NGT 5 50206	469
62	FLORIDA A&M UNIV	R MCKINNEY	KSC	B MCCUNE	NAG10 248	170
62	GEORGIA INST OF TECH	J M ORASANU	ARC	K J KNOESPEL	NCC 2 933	192
62	HERITAGE COLLEGE	R TRAVIS	SSC	J W FALCO	NAG13 99027	532
62	OLD DOMINION UNIV	P C SCHUTTE	LARC	A A FINK	NGT 1 52221	520
62	OLD DOMINION UNIV	P C SCHUTTE	LARC	D DAVIS	NAG 1 2101	516
62	OLD DOMINION UNIV	P C SHUTTE	LARC	A FITZGIBBONS	NGT 1 52193	519
62	SANTA CLARA UNIV	B G KANKI	ARC	J C TAYLOR	NCC 2 1025	60
62	THE UNIV OF CENTRAL FLORIDA	S BARTON	KSC	T KOTNOUR	NAG10 227	176
62	TUSKEGEE UNIV	D BARTA	JSC	W A HILL	NCC 9 51	6
62	UNIV OF FLORIDA	R MCKINNEY	KSC	H CAMPINS	NAG10 222	180
69	ESTRN VA MED SCH-ESTRN VA MED AUTH	A T POPE	LARC	O S PALSSON	NCC 1 310	509
69	GEORGE MASON UNIV	S M CASNER	ARC	D B DAVIS	NAG 2 1289	509
69	GEORGIA INST OF TECH	J M ORASANU	ARC	U M FISCHER	NCC 2 1124	192
69	ISRAEL INST OF TECH	R W REMINGTON	ARC	D GOPHER	NCC 2 995	558
69	MASSACHUSETTS INST OF TECH	S C LOZITO	ARC	R J HANSMAN	NAG 2 1299	292
69	MASSACHUSETTS INST OF TECH	S C LOZITO	ARC	T B SHERIDAN	NAG 2 729	292
69	MISSISSIPPI STATE UNIV	W K ANDERSON	LARC	D B KABER	NCC 1 330	334
69	NORTH CAROLINA STATE UNIV	I BARSHI	ARC	D H MERSHON	NAG 2 1281	403
69	OHIO STATE UNIV	J M ORASANU	ARC	C E MCCOY	NCC 2 1130	421
69	OHIO STATE UNIV	J M ORASANU	ARC	P J SMITH	NCC 2 1123	421
69	OHIO UNIV	J M ORASANU	ARC	C E MCCOY	NCC 2 1030	422
69	OLD DOMINION UNIV	A T POPE	LARC	F G FREEMAN	NAG 1 2105	516
69	OLD DOMINION UNIV	A T POPE	LARC	L J PRINZEL	NGT 1 52123	519
69	OLD DOMINION UNIV	A T POPE	LARC	T M EISCHEID	NGT 1 52192	519
69	OLD DOMINION UNIV	I BARSHI	ARC	D S MCNAMARA	NAG 2 1319	517
69	OREGON GRADUATE INST OF SCI & TECH	A J AHUMADA	ARC	M PAVEL	NCC 2 811	432
69	PENN STATE UNIV	A T POPE	LARC	W J RAY	NAG 1 2095	442
69	SAN FRANCISCO STATE UNIV	J M ORASANU	ARC	K L MOSIER	NAG 2 1285	56
69	SAN JOSE STATE UNIV	R K DISMUKES	ARC	K JORDAN	NCC 2 327	58
69	SAN JOSE STATE UNIV	R K DISMUKES	ARC	K P JORDAN	NCC 2 798	58
69	SAN JOSE STATE UNIV	R W REMINGTON	ARC	M VAN SELST	NCC 2 1043	58
69	SAN JOSE STATE UNIV	V M BATTISTE	ARC	L FEUNG	NAG 2 1223	57
69	TEXAS TECH UNIV	M K KAISER	ARC	P R DELUCIA	NCC 2 5257	484
69	THE CATHOLIC UNIV OF AMERICA	A T POPE	LARC	R PARASURAMAN	NAG 1 1296	163
69	THE CATHOLIC UNIV OF AMERICA	A T POPE	LARC	R PARASURAMAN	NAG 1 2103	163
69	THE CATHOLIC UNIV OF AMERICA	P C SHUTTE	LARC	S M GALSTER	NGT 1 52190	166
69	THE CATHOLIC UNIV OF AMERICA	W JOHNSON	ARC	R PARASURAMAN	NAG 2 1096	163
69	UNIV OF ARKANSAS - LITTLE ROCK	C SAWIN	JSC	P A TESCH	NAG 9 1061	42
69	UNIV OF CALIFORNIA - BERKELEY	R B WELCH	ARC	L STARK	NCC 2 757	80
69	UNIV OF CALIFORNIA - SAN DIEGO	S CASNER	ARC	E HUTCHINS	NCC 2 996	111
69	UNIV OF CALIFORNIA - SAN DIEGO	S M CASNER	ARC	E L HUTCHENS	NCC 2 1032	112
69	UNIV OF CALIFORNIA - SANTA CRUZ	R B WELCH	ARC	B BRIDGEMAN	NCC 2 928	121
69	UNIV OF CALIFORNIA - SANTA CRUZ	R B WELCH	ARC	B BRIDGEMAN	NCC 2 1003	121
69	UNIV OF COLORADO - BOULDER	I BARSHI	ARC	A F HEALY	NCC 2 1112	146

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
69	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D C FOYLE	ARC	C D WICKENS	NAG 2 1120	218
69	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	I BARSHI	ARC	H L TAYLOR	NAG 2 1282	218
69	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	S G HART	ARC	C D WICKENS	NAG 2 1224	218
69	UNIV OF MARYLAND - COLLEGE PARK	W F TRUSZKOWSKI	GSFC	K L NORMAN	NAG 5 3425	263
69	UNIV OF MARYLAND BALTIMORE	J M ORASANU	ARC	C F MACKENZIE	NCC 2 921	278
69	UNIV OF MIAMI	S M CASNER	ARC	E L WIENER	NCC 2 843	184
69	UNIV OF OREGON - EUGENE	I BARSHI	ARC	R MAURO	NCC 2 1089	436
69	UNIV OF VIRGINIA	M K KAISER	ARC	D R PROFFITT	NCC 2 925	526
69	UNIV OF VIRGINIA	M K KAISER	ARC	D R PROFFITT	NCC 2 1093	526
69	UNIV OF WASHINGTON	R A HOFFMAN	GSFC	G K PARKS	NAG 5 3170	534
69	UNIV OF WEST FLORIDA	D C FOYLE	ARC	D L STILL	NAG 2 1225	186
69	UNIV OF WISCONSIN - MADISON	E M WENZEL	ARC	F L WIGHTMAN	NCC 2 542	553
69	VA POLYTECH INST & ST UNIV	A T POPE	LARC	J L BURT	NGT 1 52107	531
69	WRIGHT STATE UNIV	A NURRIDIN	HQ	R H GILKEY	NGT 5 50213	429
71	UNIV OF MICHIGAN - ANN ARBOR	J F DOWDY	MSFC	H T WRIGHT	NGT 8 52864	325
73	NORTHEASTERN UNIV	R D LAUNIUS	HQ	W KAY	NASW 96014	307
73	SOUTHWEST TEXAS STATE UNIV	W A LARSEN	JSC	K MARGERISON	NCC 9 54	478
76	GEORGE MASON UNIV	J SWANK	GSFC	B HAACK	NAG 5 4140	509
79	ALBANY STATE UNIV	R J MCKINNEY	KSC	D HODGES-TILLER	NAG10 265	186
79	BETHUNE - COOKMAN COLLEGE	W B WILLIAMS	KSC	A D TAYLOR	NAG10 269	167
79	FLA INTERNATIONAL UNIV	R MCKINNEY	KSC	C MENDEZ	NAG10 254	168
79	FLORIDA A&M UNIV	R J MCKINNEY	KSC	S C MOBLEY	NAG10 267	170
79	MOREHOUSE COLLEGE	W LOVE	MSFC	B EVANS	NGT 8 52872	195
79	MOREHOUSE COLLEGE	W LOVE	MSFC	O CLAYTON	NGT 8 52847	195
79	SAVANNAH STATE UNIV	R J MCKINNEY	KSC	D SAJWAN	NAG10 266	196
79	SOUTHWESTERN INDIAN POLYTECH INST	L M ARMENDARIZ	JSC	J A JOHNSON	NAG 9 937	367
79	SPELMAN COLLEGE	W LOVE	MSFC	C GILLYARD	NGT 8 52873	197
79	SPELMAN COLLEGE	W LOVE	MSFC	E FALCONER	NGT 8 52846	197
79	TEXAS A&M UNIV-KINGSVILLE	L M ARMENDARIZ	JSC	J L KIMBALL	NAG 9 682	483
79	TUSKEGEE UNIV	R J MCKINNEY	KSC	D K BLACKWELL	NAG10 270	6
79	UNIV OF FLORIDA	N MAYNARD	HQ	S SANDERSON	NAGW 4640	180
79	UTAH STATE UNIV	R MCKELLIP	SSC	D BAKER	NCC13 18	505
99	ALABAMA A&M UNIV	S MILLER	MSFC	D CRAWFORD	NAG 8 1192	1
99	ALBANY STATE UNIV	E JOHNSON	KSC	G L BLACK	NAG10 233	186
99	ALCORN STATE UNIV	N SULLIVAN	JSC	D ADDIE	NAG13 98010	331
99	ARIZONA STATE UNIV	A NURRIDIN	HQ	R GREELEY	NGT 5 50077	27
99	ARIZONA STATE UNIV	G ASRAR	GSFC	R I DORN	NGT 5 30092	27
99	ARIZONA STATE UNIV	J BOYCE	GSFC	D GREELEY	NAG 5 4533	25
99	ARIZONA STATE UNIV	S L LAWRENCE	ARC	A CHATTOPADHYAY	NCC 2 5282	27
99	ARKANSAS TECH UNIV	J F DOWDY	MSFC	M CONNOR	NAG 8 1284	42
99	AUBURN UNIV	J E DUDENHOEFER	GRC	D W BRANDHORST	NCC 3 511	3
99	AUBURN UNIV	J HOWELL	MSFC	H BRANDHORST	NAG 8 1617	3
99	AUBURN UNIV	K FERNANDEZ	MSFC	H BURDG	NCC 8 69	4
99	AUSTRALIAN NATIONAL UNIV	C C JORGENSEN	ARC	M V SRINIVASAN	NAG 2 1252	558
99	BAYLOR COLLEGE OF MED	C LLOYD	JSC	B A BRODY	NAG 9 1153	472
99	BENNETT COLLEGE	M MATEU	GSFC	D OLIVER	NAG 5 3483	397
99	BETHUNE - COOKMAN COLLEGE	G BUCKINGHAM	KSC	A D TAYLOR	NAG10 220	167
99	BOSTON UNIV	B CAMPBELL	GSFC	D B KERR	NAG 5 6245	282
99	BOWIE STATE UNIV	D MENCHAN	GSFC	D W CRIM	NAG 5 8370	248
99	BOWIE STATE UNIV	L RANDOLPH	GSFC	N WAKIM	NCC 5 232	249
99	BOWIE STATE UNIV	P CROUSE	GSFC	N WAKIM	NAG 5 8787	248
99	BRANDEIS UNIV	A NURRIDIN	HQ	J F WARDLE	NGT 5 50136	285
99	BRIGHAM YOUNG UNIV	G ASRAR	GSFC	D LONG	NGT 5 30114	501
99	BROWN UNIV	A NURRIDIN	HQ	SEIDEL	NGT 5 50108	458
99	BROWN UNIV	D E SMITH	GSFC	J W HEAD	NAG 5 6144	457
99	BROWN UNIV	H CARR	SSC	J F MUSTARD	NCC13 98005	458
99	BROWN UNIV	L KEFFER	GSFC	P H SCHULTZ	NGT 5 90014	458
99	BROWN UNIV	M NOLAN	GSFC	D PIETERS	NAG 5 7998	457
99	CALIFORNIA INST OF TECH	A NURRIDIN	HQ	B SOIFER	NGT 5 50045	50
99	CALIFORNIA INST OF TECH	C LEVIT	ARC	W A GODDARD	NAG 2 1131	43
99	CALIFORNIA INST OF TECH	D E SMITH	GSFC	D O MUHLEMAN	NAG 5 4437	46
99	CALIFORNIA INST OF TECH	G ASRAR	GSFC	Y L YUNG	NGT 5 30096	50
99	CALIFORNIA INST OF TECH	L SMITH	GSFC	A LANGE	NGT 5 50249	51
99	CALIFORNIA INST OF TECH	L SMITH	GSFC	G BLAKE	NGT 5 50231	51
99	CALIFORNIA INST OF TECH	M WEI	GSFC	Y YUNG	NGT 5 30068	50
99	CALIFORNIA INST OF TECH	P DOTY	MSFC	D F BRADY	NAG 8 1237	49

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	CALIFORNIA INST OF TECH	S MCGEE	GSFC	A ALBEE	NGT 5 60003	51
99	CALIFORNIA STATE UNIV - CHICO	D CONRAD	GRC	J WRIGHT	NAS 3 26127	52
99	CALIFORNIA STATE UNIV - LOS ANGELES	D STOUTSENBERGER	GSFC	W TAYLOR	NAG 5 6195	53
99	CALIFORNIA STATE UNIV - LOS ANGELES	J MALONE	GSFC	H R BOUSSALIS	NAG 5 6757	53
99	CALIFORNIA STATE UNIV - LOS ANGELES	M MATEU	GSFC	T ADENIKA-MORROW	NAG 5 3475	53
99	CALIFORNIA STATE UNIV - LOS ANGELES	M MCCARTY	DFRC	T ADENIKA-MORROW	NAG 4 173	53
99	CALIFORNIA STATE UNIV - LOS ANGELES	R A HATHAWAY	LARC	D B LANDIS	NAG 1 1867	52
99	CALIFORNIA STATE UNIV - NORTHRIDGE	M MCCARTHY	DFRC	W FURUMOTO	NAG 4 162	54
99	CALIFORNIA STATE UNIV - NORTHRIDGE	R K DISMUKES	ARC	B TABACHIVIDE	NCC 2 1021	54
99	CALIFORNIA STATE UNIV - SACRAMENTO	D SIX	MSFC	B HAUSBACK	NAG 8 1220	54
99	CALIFORNIA STATE UNIV	C HILL	JSC	C LEE	NAG13 99010	54
99	CALIFORNIA STATE UNIV	M MC CARTHY	DFRC	E KRINSKY	NAG 4 161	54
99	CARNEGIE - MELLON UNIV	A NURRIDIN	GSFC	A W MOORE	NGT 5 50060	439
99	CARNEGIE - MELLON UNIV	A NURRIDIN	GSFC	J ANDERSON	NGT 5 50054	439
99	CARNEGIE - MELLON UNIV	A NURRIDIN	HQ	M VELOSO	NGT 5 50076	439
99	CARNEGIE - MELLON UNIV	N LAL	GSFC	B ROGERS	NCC 5 431	439
99	CASE WESTERN RESERVE UNIV	A NURRIDIN	HQ	D DITN	NGT 5 50064	412
99	CASE WESTERN RESERVE UNIV	M P WERNET	GRC	J R KADAMBI	NAG 3 2110	409
99	CHRISTOPHER NEWPORT UNIV	D SIX	MSFC	D C ANYIWO	NAG 8 1292	507
99	CHRISTOPHER NEWPORT UNIV	N LAL	GSFC	W B WILLIAMS	NCC 5 435	507
99	CHRISTOPHER NEWPORT UNIV	R A HATHAWAY	LARC	J M BAILEY	NAG 1 2171	506
99	CITY UNIV OF NY HERBERT H	M STOUSENBERGER	HQ	A L ROTHSTEIN	NAG 5 6085	369
99	CITY UNIV OF NY HERBERT H	R F LAWRENCE	GRC	A L ROTHSETIN	NAG 3 2268	369
99	CITY UNIV COLLEGE OF NY YORK COLLEGE	B WHITE	HQ	J SCHEIN	NAG 5 7532	369
99	CITY UNIV COLLEGE OF NY YORK COLLEGE	R A HATHAWAY	LARC	J M SCHEIN	NAG 1 1913	369
99	CITY UNIV OF NY CITY COLLEGE	B WHITE	HQ	R KHANBILVARDI	NCC 5 344	371
99	CITY UNIV OF NY CITY COLLEGE	J MALONE	GSFC	R R ALFANO	NAG 5 6952	370
99	CITY UNIV OF NY CITY COLLEGE	M MATEU	GSFC	J BARBA	NAG 5 4911	370
99	CITY UNIV OF NY CITY COLLEGE	R F LAWRENCE	GRC	L P JOHNSON	NAG 3 2258	370
99	CLARK ATLANTA UNIV	A C BEAM	MSFC	B E ALICK	NAG 8 1535	187
99	CLARK ATLANTA UNIV	B WHITE	HQ	D STEPHENSON-HAWK	NCC 5 347	188
99	CLARK UNIV	A C JANETOS	HQ	R E KASPERSON	NGT 30344	285
99	CLARK UNIV	G ASRAR	GSFC	B TURNER	NGT 5 30129	285
99	CLARK UNIV	G ASRAR	GSFC	L LEWIS	NGT 5 30061	285
99	CLARK UNIV	G ASRAR	GSFC	R E KASPERSON	NGT 5 30056	285
99	CLEMSON UNIV - CLEMSON	R CROUCH	GSFC	I D WALKER	NAG 5 8759	461
99	CLEMSON UNIV - CLEMSON	R J SILCOX	LARC	K A CUNEFARE	NGT 1 52179	461
99	CLEVELAND STATE UNIV	D WHITE	GRC	D M KOCHER	NAG 3 2296	413
99	CLEVELAND STATE UNIV	M L BOROWSKI	GRC	P CHARITY	NAG 3 2075	413
99	CLEVELAND STATE UNIV	R C ALEXANDER	GRC	Z AUSTRIAN	NAG 3 2273	413
99	COASTAL CAROLINA UNIV	J F DOWDY	MSFC	C GILLMAN	NAG 8 1260	462
99	COLLEGE OF CHARLESTON	D DETROYE	GSFC	M COLGAN	NCC 5 413	462
99	COLLEGE OF CHARLESTON	E T SCHWARTZ	HQ	M COLGAN	NGT 5 40050	462
99	COLLEGE OF CHARLESTON	E T SCHWARTZ	HQ	M W COLGAN	NGT 40055	462
99	COLLEGE OF CHARLESTON	H BRINTON	HQ	C COOMBS	NAGW 4467	462
99	COLLEGE OF CHARLESTON	L OSTENDORF	GSFC	M COLGAN	NGT 5 40052	462
99	COLLEGE OF SANTA FE	L ARMENDARIZ	JSC	B COLEMAN	NAG 9 992	363
99	COLLEGE OF SANTA FE	L ARMENDARIZ	JSC	B COLEMAN	NAG 9 1066	363
99	COLLEGE OF WILLIAM AND MARY	T E PINELLI	LARC	M HINDERS	NGT 1 52204	508
99	COLLEGE OF WILLIAM AND MARY	W P CHU	LARC	D C BENNER	NAS 1 98039	507
99	COLORADO STATE UNIV	L CHAMBER	GSFC	R GOTSHALL	NGT 5 50069	129
99	COLORADO STATE UNIV	L SMITH	GSFC	J NELSON	NGT 5 50164	129
99	COLORADO STATE UNIV	M WEI	GSFC	A DENNING	NGT 5 30182	129
99	COLORADO STATE UNIV	M Y WEI	GSFC	S DENNING	NGT 5 30174	129
99	COLUMBIA UNIV	A NURRIDIN	HQ	C HAILEY	NGT 5 50158	379
99	COLUMBIA UNIV	A NURRIDIN	HQ	S KAHN	NGT 5 50152	379
99	COLUMBIA UNIV	B F CHAO	GSFC	X SONG	NAG 5 7673	376
99	COLUMBIA UNIV	E LINDSTROM	GSFC	X YUAN	NAG 5 8725	377
99	COLUMBIA UNIV	G ASRAR	GSFC	D MA	NAG 5 6372	375
99	COLUMBIA UNIV	G ASRAR	GSFC	D SCHOSSER	NGT 5 30106	378
99	COLUMBIA UNIV	G ASRAR	GSFC	J HANSEN	NGT 5 30048	378
99	COLUMBIA UNIV	G ASRAR	GSFC	T TAKAHASHI	NGT 5 30079	378
99	COLUMBIA UNIV	M MATEU	GSFC	G LOPEZ	NAG 5 3482	373
99	COLUMBIA UNIV	M WEI	GSFC	M CANE	NGT 5 30123	378
99	CORNELL UNIV	A NURRIDIN	GSFC	M SALTZMAN	NGT 5 50027	385
99	CORNELL UNIV	A NURRIDIN	GSFC	S SALTZMAN	NGT 5 50036	385

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	CORNELL UNIV	A NURRIDIN	HQ	P NICHOLSON	NGT 5 50116	385
99	CORNELL UNIV	D G SICKOREZ	JSC	R W LANGHANS	NGT 9 16	385
99	CORNELL UNIV	G ASRAR	GSFC	B ISACKS	NGT 5 30126	385
99	CORNELL UNIV	L KEFFER	GSFC	Y TERZIAN	NGT 5 40019	385
99	CORNELL UNIV	L SMITH	GSFC	M SALTZMAN	NGT 5 50270	385
99	CORNELL UNIV	R CROUCH	GSFC	C MONTEEMAGNO	NAG 5 8775	383
99	CORNELL UNIV	R R HARMAN	GSFC	M PSIAKI	NAG 5 8076	383
99	CORNELL UNIV	R V MORRIS	JSC	R V MORRIS	NCC 9 89	385
99	CUYAHOGA COMM COLLEGE	R F LAWRENCE	GRC	S CHAND	NAG 3 2195	415
99	CUYAHOGA COMM COLLEGE	R L BONDURANT	GRC	C JOHNSON	NAG 3 1711	415
99	CUYAHOGA COMM COLLEGE	R L BONDURANT	GRC	L L DARLING	NAS 3 98099	415
99	CUYAHOGA COMM COLLEGE	R L BONDURANT	GRC	T MCMANAMON	NAG 3 2038	415
99	CUYAHOGA COMM COLLEGE	R L BONDURANT	LARC	T MC MANAMON	NAS 3 97169	415
99	DANIEL WEBSTER COLLEGE	D SIX	MSFC	D LOPEZ	NAG 8 1209	346
99	DARTMOUTH COLLEGE	A NURRIDIN	GSFC	M HUDSON	NGT 5 50059	348
99	DARTMOUTH COLLEGE	A NURRIDIN	HQ	M HUDSON	NGT 5 50153	348
99	DINE COLLEGE	R TRAVIS	JSC	D ISELY	NAG13 99028	27
99	DRAKE UNIV	D SIX	MSFC	M D VALLE-BOHORQUEZ	NAG 8 1222	230
99	DUKE UNIV	G ASRAR	GSFC	B STRAIN	NGT 5 30065	399
99	DUKE UNIV	G ASRAR	GSFC	D RICHTER	NGT 5 30107	399
99	DUKE UNIV	G ASRAR	GSFC	D RICHTER	NGT 5 30117	399
99	DUKE UNIV	G ASRAR	GSFC	W H SCHESINGER	NGT 5 30055	399
99	DUKE UNIV	G ASRAR	GSFC	W H SCHESINGER	NGT 5 30057	399
99	DUKE UNIV	L SMITH	GSFC	G TRUSKEY	NGT 5 50266	399
99	DUKE UNIV	M GERNHARDT	JSC	R VANN	NCC 9 83	398
99	DUKE UNIV	M WEI	GSFC	D REYNOLDS	NGT 5 30105	399
99	EAST TENNESSEE STATE UNIV	D SIX	MSFC	D J WILSON	NAG 8 1218	464
99	EASTERN NEW MEX. UNIV - MAIN CAMP.	L ARMENDARIZ	JSC	J MILLER	NAG 9 972	363
99	ELIZABETH CITY STATE UNIV	STOUTSENBERGER	GSFC	S SACHDEV	NAG 5 6814	399
99	FAYETTEVILLE STATE UNIV	M STOUTSENBERGER	GSFC	L EDWARDS	NAG 5 6095	400
99	FAYETTEVILLE STATE UNIV	S CANRIGHT	LARC	L EDWARD	NAG 1 1928	400
99	FISK UNIV	C HUA SU	MSFC	A BURGER	NCC 8 195	465
99	FLA INTERNATIONAL UNIV	H T STEWART	ARC	I R FERNANDEZ	NAG 2 1384	167
99	FLA INTERNATIONAL UNIV	J MALONE	GSFC	N RISHE	NAG 5 6531	168
99	FLA INTERNATIONAL UNIV	M J LEON	ARC	C LEVY	NCC 2 917	169
99	FLA INTERNATIONAL UNIV	M MATEU	GSFC	C BRAIN	NAG 5 6556	168
99	FLA INTERNATIONAL UNIV	M MATEU	GSFC	G ROIG	NAG 5 6324	168
99	FLA INTERNATIONAL UNIV	R MC KINNEY	KSC	C MENDEZ	NAG10 251	168
99	FLORIDA A&M UNIV	E JOHNSON	KSC	B SAMUELS	NAG10 242	170
99	FLORIDA A&M UNIV	E JOHNSON	KSC	B SAMUELS	NAG10 262	170
99	FLORIDA A&M UNIV	J E BOYD	GRC	F S HUMPHRIES	NAG 3 1759	169
99	FLORIDA A&M UNIV	J L HARRINGTON, JR.	GSFC	D H AMMONS	NAG 5 7989	169
99	FLORIDA A&M UNIV	L P RANDOLPH	GSFC	C B GOODMAN	NGT 5 90062	170
99	FLORIDA ATLANTIC UNIV	T H MAIER	ARC	G H GEONKAR	NCC 2 5264	171
99	FLORIDA INST OF TECH	J D BOHLIN	GSFC	M MOLDWIN	NAGW 5153	172
99	FLORIDA INST OF TECH	J MEDINA	KSC	R LANIER	NGT10 52621	172
99	FLORIDA INST OF TECH	L SMITH	GSFC	C HELMSTETTER	NGT 5 50257	172
99	FLORIDA INST OF TECH	R WHEELER	KSC	M BUSH	NGT10 52622	172
99	FLORIDA STATE UNIV	B W MESSON	GSFC	J O	NAG 5 7648	174
99	FLORIDA STATE UNIV	G ASRAR	GSFC	E SMITH	NGT 5 30116	175
99	FOOTHILL-DE ANZA COM COL SYS OFF	M E LOPEZ	ARC	M CONWAY	NGT 2 1001	55
99	FORT BELKNAP COLLEGE	M STOUTSENBERGER	GSFC	M TAYLOR	NAG 5 4148	341
99	FURMAN UNIV	R K DISMUKES	ARC	G O EINSTEIN	NCC 2 1085	462
99	GALLAUDET UNIV	R LAWRENCE	GSFC	G MCGAUGHRAN	NGT 5 90078	158
99	GEORGE MASON UNIV	A E TAYLOR	GSFC	R R STOUGH	NCC 5 360	510
99	GEORGE MASON UNIV	G ASRAR	GSFC	D RINE	NGT 5 30101	510
99	GEORGE MASON UNIV	M MAIDEN	GSFC	M KAFATOS	NCC 5 306	510
99	GEORGE WASHINGTON UNIV	E T SCHWARTZ	HQ	J M LOGSDON	NGT 40056	160
99	GEORGE WASHINGTON UNIV	L KEFFER	GSFC	J M LOGSDON	NGT 5 40058	160
99	GEORGIA INST OF TECH	G ASRAR	GSFC	D SANDHOLM	NAG 5 6284	191
99	GEORGIA INST OF TECH	G ASRAR	GSFC	D WINE	NGT 5 30069	193
99	GEORGIA INST OF TECH	G ASRAR	GSFC	P H WINE	NGT 5 30099	193
99	GEORGIA INST OF TECH	G L GILES	LARC	D P SCHRAGE	NGT 1 52156	193
99	GEORGIA INST OF TECH	J E GARDNER	LARC	B V GIBBENS	NGT 1 52162	193
99	GEORGIA INST OF TECH	L KEFFER	GSFC	E ARMANIOS	NGT 5 40023	194
99	GEORGIA INST OF TECH	P BACON	HQ	K A CUNEFARE	NGT 1 52167	193

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	GEORGIA INST OF TECH	P ROGERS	HQ	J P BRADLEY	NAGW 5176	191
99	GEORGIA INST OF TECH	R BAUER	GRC	D HOWARD	NAS 3 27361	191
99	GEORGIA INST OF TECH	W W JOHNSON	ARC	A R PRITCHETT	NAG 2 1178	189
99	GEORGIA SOUTHWESTERN STATE UNIV	B CAMPBELL	GSFC	P W ANDERSON	NAG 5 4592	194
99	HAMPTON UNIV	B WHITE	HQ	A OLADIPUPO	NAGW 5171	512
99	HAMPTON UNIV	B WHITE	HQ	D A TEMPLE	NCC 5 348	513
99	HAMPTON UNIV	G ASRAR	GSFC	P F MOLIN	NAG 1 1185	510
99	HAMPTON UNIV	M STOUTSENBERGER	GSFC	M MORGAN	NAG 5 6938	512
99	HAMPTON UNIV	N KHAZENIE	GSFC	D A TEMPLE	NAG 5 6296	512
99	HAMPTON UNIV	R A HATHAWAY	LARC	C LOWE	NAG 1 2159	511
99	HAMPTON UNIV	R A HATHAWAY	LARC	C W LOWE	NAG 1 1902	510
99	HAMPTON UNIV	R A HATHAWAY	LARC	P F MOLINA	NGT 1 52207	513
99	HAMPTON UNIV	R HATHAWAY	LARC	C LOWE	NGT 1 2207	511
99	HAMPTON UNIV	R HATHAWAY	LARC	W P MARABLE	NGT 1 52181	513
99	HAMPTON UNIV	R L YANG	LARC	N	NAS 1 19935	512
99	HARVARD UNIV	A NURRIDIN	GSFC	J GRINDLEY	NGT 5 50020	290
99	HARVARD UNIV	A NURRIDIN	GSFC	L HERNQUIST	NGT 5 50028	290
99	HARVARD UNIV	A NURRIDIN	HQ	D NAHUM	NGT 5 50122	290
99	HARVARD UNIV	A NURRIDIN	HQ	L G VALIANT	NGT 5 50145	290
99	HARVARD UNIV	L SMITH	GSFC	R KIRSHNER	NGT 5 50244	290
99	HARVARD UNIV	L SMITH	GSFC	W H PARKINSON	NGT 5 50258	290
99	HERITAGE COLLEGE	B J COLLINS	ARC	P T ALEXANDER	NAG 2 6034	532
99	HOUSTON COMM COLLEGE	M MATEU	GSFC	C GARCIA	NAG 5 8566	472
99	HOWARD UNIV	D MENCHAN	GSFC	D WOODARD	NAG 5 7384	161
99	HOWARD UNIV	E T SCHWARTZ	HQ	J B HALPERN	NGT 40024	162
99	HOWARD UNIV	G A SOFFEN	GSFC	A N THORPE	NCC 5 184	162
99	HOWARD UNIV	G SOFFEN	GSFC	J B HALPERN	NGT 5 37	162
99	HOWARD UNIV	J HARRINGTON	GSFC	E DORSEY	NCC 5 192	162
99	HOWARD UNIV	M S BURRELL	GSFC	J B HALPERN	NGT 5 77	162
99	HUNTER COLL OF THE CITY UNIV OF NY	J F DOWDY	MSFC	L COHEN	NAG 8 1259	386
99	HUSTON-TILLOTSON COLLEGE	C HOSKINS	JSC	N KAY	NAG 9 775	472
99	IMPERIAL COLLEGE OF SCI & TECH	M E DUENAS	ARC	R P LINDSTEDT	NAG 2 1283	558
99	INDIANA UNIV - BLOOMINGTON	A NURRIDIN	HQ	V E VIOLA	NGT 5 50162	225
99	IOWA STATE UNIV	A NURRIDIN	HQ	J W WIENCEK	NGT 5 50137	233
99	IOWA STATE UNIV	D DETROYE	GSFC	W J BYRD	NGT 5 40027	232
99	IOWA STATE UNIV	E SCHWARTZ	HQ	W J BYRD	NGT 40018	232
99	JACKSON STATE UNIV	A JOYCE	SSC	A K MOHAMED	NAG13 98007	332
99	JACKSON STATE UNIV	A JOYCE	SSC	H GORE	NAG13 99004	332
99	JACKSON STATE UNIV	A R JOYCE	SSC	C HARPER	NGT13 52713	332
99	JACKSON STATE UNIV	A T JOYCE	SSC	P B TCHOUNWOU	NAG13 49	332
99	JACKSON STATE UNIV	B WHITE	GSFC	R SULLIVAN	NGT 5 90067	332
99	JACKSON STATE UNIV	M STOUTSENBERGER	HQ	A MOHAMED	NAG 5 6086	332
99	JAMES MADISON UNIV	R A HATHAWAY	LARC	A A TEATE	NAG 1 2155	513
99	JARVIS CHRISTIAN COLLEGE	L ARMENDARIZ	JSC	M J MCKINNEY	NAG 9 1065	472
99	JARVIS CHRISTIAN COLLEGE	M STOUTSENBERGER	GSFC	M MCKINNEY	NAG 5 3776	472
99	JOHN C	S PAYNE	MSFC	R CARPENTER	NCC 8 118	4
99	JOHNS HOPKINS UNIV	B CAMPBELL	GSFC	D GOLD	NAG 5 6488	253
99	JOHNS HOPKINS UNIV	B CAMPBELL	GSFC	D L MCNUTT	NAG 5 6014	253
99	JOHNS HOPKINS UNIV	B CAMPBELL	GSFC	D W MCENTIRE	NAG 5 4548	252
99	JOHNS HOPKINS UNIV	D MENGERS	GSFC	E C ROELOF	NAG 5 7720	254
99	JOHNS HOPKINS UNIV	D R MENGERS	GSFC	D MOOS	NAG 5 3448	251
99	JOHNS HOPKINS UNIV	G ASRAR	GSFC	M B PARLANGE	NGT 5 30132	259
99	JOHNS HOPKINS UNIV	L KEFFER	GSFC	R C HENRY	NGT 5 40029	259
99	JOHNS HOPKINS UNIV	L SMITH	GSFC	K J STEBE	NGT 5 50259	259
99	JOHNS HOPKINS UNIV	L SMITH	GSFC	K J STEBE	NGT 5 50268	259
99	JOHNS HOPKINS UNIV	M NOLAN	GSFC	J T MUELLER	NAG 5 7999	255
99	JOHNS HOPKINS UNIV	M NOLAN	GSFC	M R PETERSON	NAG 5 8001	255
99	JOHNS HOPKINS UNIV	T KOSTIUK	HQ	R E GOLD	NAGW 5105	258
99	JOHNS HOPKINS UNIV	T KOSTIUK	HQ	R W MCENTIRE	NAGW 5093	258
99	KENT STATE UNIV	J STORTI	GRC	J D KELLER	NAG 3 1751	416
99	LA GUARDIA COMMUNITY COLLEGE	R LAWRENCE	GSFC	R MCLEOD	NGT 5 90079	386
99	LE TOURNEAU UNIV	D SIX	MSFC	D FORD	NAG 8 1221	472
99	LINCOLN UNIV - PA	M STOUTSENBERGER	GSFC	R LANGLEY	NAG 5 4492	441
99	LOUISIANA STATE UNIV - BATON ROUGE	D DETROYE	HQ	J WEFEL	NCC 5 393	243
99	LOUISIANA STATE UNIV - BATON ROUGE	D DETROYE	GSFC	J P WEFEL	NCC 5 167	243
99	LOUISIANA STATE UNIV - BATON ROUGE	L KEFFER	GSFC	J P WEFEL	NGT 5 40035	244

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	LOYOLA MARYMOUNT UNIV	L DUKE, II	DFRC	I BOND	NAG 4 116	55
99	MANKATO STATE UNIV	F SIX	MSFC	J HAKKILA	NAG 8 192	326
99	MASSACHUSETTS INST OF TECH	A NURRIDIN	GSFC	L MCKIGHT	NGT 5 50037	307
99	MASSACHUSETTS INST OF TECH	D E SMITH	GSFC	G H PETTENGILL	NAG 5 4434	297
99	MASSACHUSETTS INST OF TECH	D E SMITH	GSFC	T H JORDAN	NCC 5 212	305
99	MASSACHUSETTS INST OF TECH	D SMITH	GSFC	M ZUBER	NAG 5 4806	297
99	MASSACHUSETTS INST OF TECH	G ASRAR	GSFC	D HU	NAG 5 6370	298
99	MASSACHUSETTS INST OF TECH	K OGILVIE	GSFC	A LARARUS	NAG 5 7359	300
99	MASSACHUSETTS INST OF TECH	L KEFFER	GSFC	L R YOUNG	NGT 5 40048	307
99	MASSACHUSETTS INST OF TECH	M C WALLER	LARC	J K KUCHAR	NAG 1 1974	291
99	MASSACHUSETTS INST OF TECH	R CROUCH	GSFC	G MCKINLEY	NAG 5 8776	302
99	MASSACHUSETTS INST OF TECH	D G SICKOREZ	JSC	B W TOBIN	NAG 9 1071	195
99	MERCER UNIV CENTRAL OFFICE	A NURRIDIN	GSFC	J Z KISS	NGT 5 50041	416
99	MIAMI UNIV	A NURRIDIN	HQ	P WEBBER	NGT 5 50150	314
99	MICHIGAN STATE UNIV	B W MESSON	GSFC	N WALKER	NAG 5 7650	313
99	MICHIGAN STATE UNIV	M MAIDEN	GSFC	D SKOLE	NCC 5 303	314
99	MICHIGAN STATE UNIV	S OLSON	GRC	I S WICHMAN	NCC 3 662	313
99	MICHIGAN STATE UNIV	J BERGSTRAHL	HQ	A BORYSOW	NAGW 4566	315
99	MICHIGAN TECHNOLOGICAL UNIV	D POWE	SSC	M DINGERSON	NAS13 564	334
99	MISSISSIPPI STATE UNIV	H CARR	SSC	D SHAW	NCC13 99001	334
99	MISSISSIPPI STATE UNIV	K SHARP	SSC	L STABLER	NAS13 98033	334
99	MISSISSIPPI STATE UNIV	N S SULLIVAN	SSC	S J WHITE	NAG13 99003	334
99	MISSISSIPPI VALLEY STATE UNIV	N SULLIVAN	JSC	S J WHITE	NAG13 51	334
99	MISSISSIPPI VALLEY STATE UNIV	D DETROYE	GSFC	W A HISCOCK	NGT 5 40036	343
99	MONTANA STATE UNIV	D DETROYE	GSFC	W HISCOCK	NCC 5 410	342
99	MONTANA STATE UNIV	D JAN	JPL	B H PYLE	NAG 9 1082	342
99	MONTANA STATE UNIV	E T SCHWARTZ	HQ	W A HISCOCK	NGT 40041	342
99	MONTANA STATE UNIV	L SMITH	GSFC	J PRISCU	NGT 5 50235	343
99	MONTANA STATE UNIV	M V PHELPS	GSFC	G TUTHILL	NAG 5 4576	342
99	MONTANA STATE UNIV	B J COLLINS	ARC	M THIERRY-PALMER	NAG 2 1381	195
99	MOREHOUSE SCH MED	B G BILLS	GSFC	D C HELM	NCC 5 199	260
99	MORGAN STATE UNIV	D MENCHAN	GSFC	H WILLIAMS	NAG 5 8860	260
99	MORGAN STATE UNIV	K KRISHEN	JSC	J E WHITNEY	NAG 9 998	260
99	MORGAN STATE UNIV	P HOLLOWAY	GSFC	H WILLIAMS	NAG 5 8574	260
99	MORGAN STATE UNIV	A C BEAM	MSFC	M RALPH	NAG 8 1416	196
99	MORRIS BROWN COLLEGE	A M LEE	JSC	D COHEN	NAS 9 19441	387
99	MT SINAI SCH OF MED OF THE CUNY	M STOUTSENBERGER	GSFC	M E RIDDLE	NAG 5 4182	55
99	NATIONAL HISPANIC UNIV	F SIX	MSFC	S BAOHERI	NAG 8 1114	356
99	NEW JERSEY INST OF TECH	J MALONE	GSFC	R CLARK	NAG 5 6532	363
99	NEW MEXICO HIGHLANDS UNIV	M STOUYSENBERGER	GSFC	J C	NGT 5 90069	364
99	NEW MEXICO HIGHLANDS UNIV	R LAWRENCE	GSFC	B TAYLOER	NGT 5 90042	363
99	NEW MEXICO HIGHLANDS UNIV	A NURRIDIN	GSFC	R WALTERBOS	NGT 5 50019	366
99	NEW MEXICO STATE UNIV - LAS CRUCES	A NURRIDIN	GSFC	S CASTILLO	NGT 5 50117	366
99	NEW MEXICO STATE UNIV - LAS CRUCES	A NURRIDIN	HQ	M MARLEY	NGT 5 50148	367
99	NEW MEXICO STATE UNIV - LAS CRUCES	B J COLLINS	ARC	G V GARCIA	NAG 2 6030	364
99	NEW MEXICO STATE UNIV - LAS CRUCES	J DASCH	HQ	P HYNES	NGT 5 40061	366
99	NEW MEXICO STATE UNIV - LAS CRUCES	R K DISMUKES	ARC	G E YOUNG	NCC 2 1002	366
99	NORFOLK STATE UNIV	M CANRIGHT	LARC	M NEWSOME	NAG 1 1937	514
99	NORFOLK STATE UNIV	M D CANRIGHT	LARC	C COLEMAN	NAG 1 2098	514
99	NORFOLK STATE UNIV	N KHAZENIE	GSFC	S CHAUDHURY	NAG 5 8541	515
99	NORFOLK STATE UNIV	R A HATHAWAY	LARC	R TUCKER-HOGAN	NCC 1 338	515
99	NORFOLK STATE UNIV	R HATHAWAY	LARC	D JONES	NAG 1 1967	514
99	NORFOLK STATE UNIV	R HATHAWAY	LARC	E P WITTY	NAG 1 2066	514
99	NORFOLK STATE UNIV	R HATHAWAY	LARC	E WITTY	NAG 1 1705	514
99	NORFOLK STATE UNIV	R HATHAWAY	LARC	E WITTY	NCC 1 295	515
99	NORFOLK STATE UNIV	S CANRIGHT	LARC	C COLEMAN	NAG 1 1948	514
99	NORTH CAROLINA A&T STATE UNIV	B WHITE	GSFC	A D KELKAR	NCC 5 349	402
99	NORTH CAROLINA A&T STATE UNIV	C WILKERSON	MSFC	D J SCHULZ	NAG 8 1247	401
99	NORTH CAROLINA A&T STATE UNIV	D F NOGA	GRC	Y ELLEN	NAG 3 2165	401
99	NORTH CAROLINA A&T STATE UNIV	J D ERICK SUN	JSC	B RAM	NAG 9 973	402
99	NORTH CAROLINA A&T STATE UNIV	R K DISMAKES	ARC	C A NTUEN	NCC 2 987	402
99	NORTH CAROLINA A&T STATE UNIV	S E MASSENBERG	LARC	L SHARPE	NAG 1 956	400
99	NORTH CAROLINA A&T STATE UNIV	S E MASSENBERG	LARC	L SHARPE	NAS 1 19157	402
99	NORTH CAROLINA STATE UNIV	A GHASSEM	GSFC	D REICHLE	NGT 5 30054	405
99	NORTH CAROLINA STATE UNIV	C	ARC	D W BRENNER	NAG 2 1119	403
99	NORTH CAROLINA STATE UNIV	C LEVIT	ARC	B I YAKOBSON	NAG 2 1115	403

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	NORTH CAROLINA STATE UNIV	D DETROYE	GSFC	F R DEJARNETTE	NGT 5 40011	405
99	NORTH CAROLINA STATE UNIV	J A WHITE	LARC	J R EDWARDS	NAG 1 2216	403
99	NORTH CAROLINA STATE UNIV	S SPEARMAN	MSFC	K J BACHMANN	NCC 8 95	405
99	NORTHERN ARIZONA UNIV	P SAKIMOTO	GSFC	G M BOYNE	NGT 5 90080	28
99	NORTHWEST INDIAN COLLEGE	M JASINSKI	GSFC	G BLEDSOE	NCC 5 423	532
99	NORTHWEST INDIAN COLLEGE	STOUTSENBERGER	GSFC	K YAMAMOTO	NAG 5 6445	532
99	NORTHWESTERN UNIV	A NURRIDIN	GSFC	B J MATKOWSKY	NGT 5 50038	211
99	NORTHWESTERN UNIV	A NURRIDIN	GSFC	M MATALON	NGT 5 50016	211
99	NORTHWESTERN UNIV	D L JAN	JPL	D A STAHL	NAG 9 1079	210
99	NORTHWESTERN UNIV	H HASAN	GSFC	P NATH	NAG 5 6874	210
99	NORTHWESTERN UNIV	L SMITH	GSFC	B J MATKOWSKY	NGT 5 50263	211
99	NORTHWESTERN UNIV	L SMITH	GSFC	P W VORHEES	NGT 5 50261	211
99	NORTHWESTERN UNIV	T GATES	LARC	L C BRINSON	NCC 1 271	210
99	OAKWOOD COLLEGE	G HAMILTON	MSFC	K BENN-MARSHALL	NAG 8 1600	4
99	OAKWOOD COLLEGE	J HALE	MSFC	K BENN-MARSHALL	NAG 8 1300	4
99	OGLALA LAKOTA COLLEGE	T GULL	GSFC	J HAAS	NAG 5 7548	463
99	OHIO NORTHERN UNIV	D G SICKOREZ	JSC	C A SHEARROW	NAG 9 1074	416
99	OHIO STATE UNIV	A NURRIDIN	HQ	M EVANS	NGT 5 50015	422
99	OKLAHOMA STATE UNIV	C LLOYD	JSC	B J STOECKER	NAG 9 1159	430
99	OKLAHOMA STATE UNIV	L BILBROUGH	HQ	K WIGGINS	NASW 5043	430
99	OKLAHOMA STATE UNIV	L BILBROUGH	HQ	K WIGGINS	NCCW 5	430
99	OKLAHOMA STATE UNIV	P L MOUNTJOY	GSFC	K E WIGGINS	NCC 5 185	430
99	OLD DOMINION UNIV	G ALCORN	GSFC	B M REED	NAG 5 3567	517
99	OLD DOMINION UNIV	L KEFFER	GSFC	M L SANDY	NGT 5 40009	520
99	OLD DOMINION UNIV	L KEFFER	GSFC	M L SANDY	NGT 5 40059	520
99	OLD DOMINION UNIV	R A HATHAWAY	LARC	S N TUIVORE	NGT 1 52208	520
99	OLD DOMINION UNIV	R A HATHAWAY	LARC	S TIWARI	NGT 1 52157	519
99	ORAL ROBERTS UNIV	R HARMAN	GSFC	D HALSMER	NAG 5 7378	430
99	OREGON HEALTH SCIENCES UNIV	V SCHNEIDER	GSFC	R PETERKA	NAG 5 7869	432
99	OREGON STATE UNIV	G ASRAR	GSFC	M ABBOTT	NGT 5 30064	435
99	OREGON STATE UNIV	H CARR	SSC	D KIMERLING	NCC13 98004	435
99	OREGON STATE UNIV	L CHAMBERS	GSFC	C SNOW	NGT 5 50080	435
99	OREGON STATE UNIV	L KEFFER	GSFC	A C KLEIN	NGT 5 40022	435
99	OREGON STATE UNIV	M Y WEI	GSFC	B BOND	NGT 5 30181	435
99	OREGON STATE UNIV	R K DISMUKES	ARC	K H FUNK	NAG 2 1287	432
99	OUR LADY OF THE LAKE UNIV	L ARMENDARIZ	JSC	J KUEKER	NAG 9 976	472
99	OUR LADY OF THE LAKE UNIV	L ARMENDARIZ	JSC	K A WARD	NAG 9 1170	473
99	PASADENA CITY COLLEGE	M STOUTSENBERGER	GSFC	J CONNOR	NAG 5 6379	55
99	PENN STATE UNIV -HERSHEY MED	L SMITH	GSFC	C CHENG	NGT 5 50264	441
99	PENN STATE UNIV	A NURRIDIN	GSFC	D BURROWS	NGT 5 50049	450
99	PENN STATE UNIV	A NURRIDIN	HQ	C CROYSKEY	NGT 5 50112	450
99	PENN STATE UNIV	A NURRIDIN	HQ	P WALKER	NGT 5 50113	450
99	PENN STATE UNIV	A NURRIDIN	HQ	S BRANTLEY	NGT 5 50178	451
99	PENN STATE UNIV	A NURRIDIN	HQ	S MCCLINTOCK	NGT 5 50147	450
99	PENN STATE UNIV	G ASRAR	GSFC	W BRUNE	NGT 5 30066	450
99	PENN STATE UNIV	J DASCH	HQ	R DEVON	NGT 5 40064	450
99	PENN STATE UNIV	JF DOWDY	MSFC	G SUBRAMANIAM	NAG 8 1286	448
99	PENN STATE UNIV	L SMITH	GSFC	M BERSHADY	NGT 5 50236	451
99	PENN STATE UNIV	L SMITH	GSFC	N BRANDT	NGT 5 50247	451
99	PENN STATE UNIV	L T KEFFER	HQ	R DEVON	NGT 40002	449
99	PENN STATE UNIV	M MC CARTHY	DFRC	R DEVON	NAG 4 160	443
99	PENN STATE UNIV	M WEI	GSFC	A BARROS	NGT 5 30060	450
99	PENN STATE UNIV	N LAL	GSFC	R F DEVON	NCC 5 432	449
99	PERALTA COMM COL SYS OFFICE	B J COLLINS	ARC	R J PARKER	NAG 2 6031	55
99	PRAIRIE VIEW A&M UNIV	A JOYCE	SSC	S SHAKIR	NAG13 46	473
99	PRAIRIE VIEW A&M UNIV	K KRISTEN	JSC	C L TOLLIVER	NAG 9 779	473
99	PRINCETON UNIV	D WICKLAND	GSFC	D A LEVIN	NAG 5 6422	357
99	PRINCETON UNIV	G ASRAR	GSFC	S HUBBELL	NGT 5 30113	359
99	PURDUE UNIV	A NURRIDIN	HQ	J LONGUSKI	NGT 5 50110	229
99	PURDUE UNIV	D FOLTA	GSFC	K C HOWELL	NCC 5 358	228
99	PURDUE UNIV	L KEFFER	GSFC	D ANDRISANI	NGT 5 40043	229
99	RENSSELAER POLYTECH INST	D MONTEGANI	GRC	J A TICHY	NGT 3 52341	389
99	RENSSELAER POLYTECH INST	G A ROBERSTON	MSFC	L N MYRABO	NAG 8 1290	388
99	RENSSELAER POLYTECH INST	L SMITH	GSFC	B SZMANSKI	NGT 5 50165	389
99	RENSSELAER POLYTECH INST	S MERRITT	GRC	M D SMITH	NAG 3 1696	388
99	RICE UNIV	A NURRIDIN	HQ	D LEEMAN	NGT 5 50057	477

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	RICE UNIV	A NURRIDIN	HQ	P H REIFF	NGT 5 50119	477
99	RICE UNIV	A TUYAHOV	GSFC	P REIFF	NCC 5 311	477
99	RICE UNIV	C LEVIT	ARC	G E SCUSERIA	NAG 2 1112	474
99	RICE UNIV	J L CREWS	JSC	Y C ANGEL	NAG 9 929	476
99	ROANOKE COLLEGE	D SIX	MSFC	A F BARGHOUTY	NAG 8 1208	520
99	ROCHESTER INST OF TECH	B CAMPBELL	GSFC	D NINKOV	NAG 5 6486	389
99	ROCHESTER INST OF TECH	D G SICKOREZ	JSC	C T WALLINGTON	NAG 9 1072	389
99	RUTGERS STATE UNIV - PISCATAWAY	G ASRAR	GSFC	D ROBINSON	NGT 5 30062	361
99	RUTGERS STATE UNIV OF NJ NEW BRUNS	B W MEESON	GSFC	W CRANS	NAG 5 7666	362
99	SAINT AUGUSTINE	M STOUTSENBERGER	GSFC	Y M COSTEN	NAG 5 6097	406
99	SAINT LOUIS UNIV	A NURRIDIN	GSFC	N PARTRIDGE	NGT 5 50047	335
99	SAN ANTONIO COLLEGE	L ARMENDARIZ	JSC	C GONZALES	NAG 9 975	478
99	SAN DIEGO STATE UNIV	G ASRAR	GSFC	D ALLEN	NGT 5 30077	56
99	SAN DIEGO STATE UNIV	G ASRAR	GSFC	W C OECHEL	NGT 5 30118	56
99	SAN JOSE STATE UNIV	A NURRIDIN	HQ	S WHITE	NGT 5 50115	60
99	SAN JOSE STATE UNIV	M F VASQUES	ARC	D C HOLLEY	NCC 2 1136	59
99	SAN JOSE STATE UNIV	R K DISMUKES	ARC	K P JORDAN	NCC 2 1095	59
99	SANTA CLARA UNIV	L A SHAWNEE	ARC	L MAHON	NAG 2 6011	60
99	SHAW UNIV	R LAWRENCE	GSFC	M CLAYTON	NGT 5 90059	406
99	SONOMA STATE UNIV	N LAL	GSFC	L COMINSKY	NCC 5 429	61
99	SOUTH CAROLINA STATE UNIV	B L WHITE	HQ	J W FULLER	NAGW 4618	463
99	SOUTH CAROLINA STATE UNIV	D MENCHAN	GSFC	J W FULLER	NAG 5 8246	462
99	SOUTH CAROLINA STATE UNIV	M MATEU	GSFC	J FULLER	NAG 5 4252	462
99	SOUTH DAKOTA SCH OF MINES & TECH	D DETROYE	GSFC	S FARWELL	NCC 5 402	464
99	SOUTH DAKOTA SCH OF MINES & TECH	L KEFFER	GSFC	S O FARWELL	NGT 5 40042	464
99	SOUTHERN UNIV & A&M COLLEGE	A JOYCE	SSC	E HILDRETH	NGT13 52720	246
99	SOUTHERN UNIV & A&M COLLEGE	B WHITE	GSFC	D BAGAYOKO	NAG 5 8552	245
99	SOUTHERN UNIV & A&M COLLEGE	D FORD	MSFC	C WANG	NCC 8 138	245
99	SOUTHERN UNIV & A&M COLLEGE	G GORDON	MSFC	M A STUNNLEFIELD	NAG 8 1536	245
99	SOUTHERN UNIV & A&M COLLEGE	W J LOVE	MSFC	L L LAURENCE	NAG 8 1627	245
99	SOUTHWEST TEXAS JUNIOR COLLEGE	L ARMENDARIZ	JSC	A HERNANDEZ	NAG 9 1019	478
99	SPELMAN COLLEGE	L RANDOLPH	GSFC	E FALCONER	NCC 5 237	197
99	SPELMAN COLLEGE	W J LOVE	MSFC	E Z FALCONER	NCC 8 179	197
99	STANFORD UNIV	A NURRIDIN	GSFC	R WAGONER	NGT 5 50044	70
99	STANFORD UNIV	A NURRIDIN	HQ	J HOW	NGT 5 50075	70
99	STANFORD UNIV	C LEVIT	ARC	C B MUSGRAVE	NAG 2 1113	62
99	STANFORD UNIV	E M HUFF	ARC	I M KROO	NAG 2 1070	62
99	STANFORD UNIV	G ASRAR	GSFC	D VITOUSE	NGT 5 30130	70
99	STANFORD UNIV	L SMITH	GSFC	A B WALKER	NGT 5 50254	70
99	STANFORD UNIV	M M MOORE	ARC	G S SPRINGER	NGT 2 52212	69
99	STANFORD UNIV	M WEI	GSFC	C FIELD	NGT 5 50101	70
99	STATE UNIV OF NY - ALBANY	G ASRAR	GSFC	D R FITZJARRALD	NGT 5 30081	390
99	STATE UNIV OF NY - STONY BROOK	S ASRAR	GSFC	M LERDAU	NGT 5 30124	394
99	STEVENS INST OF TECH	L KEFFER	GSFC	S THANGAM	NGT 5 40041	363
99	STEVENS INST OF TECH	M MATEU	GSFC	T G WILLIAMS	NAG 5 3715	362
99	STILLMAN COLLEGE	B L WHITE	HQ	J WASHINGTON	NAGW 4486	4
99	STILLMAN COLLEGE	M STOUTSENBERGHER	GSFC	J CHRISTIAN	NAG 5 4588	4
99	TENNESSEE STATE UNIV	P SAKIMOTO	GSFC	M BUSBY	NCC 5 228	466
99	TENNESSEE STATE UNIV	R F LAWRENCE	GRC	D B ROGERS	NAG 3 2266	466
99	TENNESSEE STATE UNIV	R F LAWRENCE	GRC	D B ROGERS	NAG 3 2272	466
99	TENNESSEE TECHNOLOGICAL UNIV	J P DOWDY	MSFC	J C CHAI	NAG 8 1279	466
99	TEXAS A&M UNIV	D BARTA	JSC	M C DREW	NAG 9 1067	481
99	TEXAS A&M UNIV	D SICKOREZ	JSC	W A HYMAN	NGT 9 39	482
99	TEXAS A&M UNIV	F E PEWARANDA	HQ	G SERA	NASW 4679	481
99	TEXAS A&M UNIV	J E CALOGERAS	GRC	F R BEST	NCC 3 516	481
99	TEXAS A&M UNIV	J HOWELL	MSFC	K CHANG	NAG 8 1618	480
99	TEXAS A&M UNIV	P MOUNTJOY	HQ	S BEDNARZ	NCC 5 359	482
99	TEXAS A&M UNIV	R LAWRENCE	GSFC	W TURNER	NGT 5 90005	482
99	TEXAS SOUTHMOST COLLEGE	L ARMENDARIZ	JSC	L V LOF	NAG 9 965	484
99	TEXAS TECH UNIV	A NURRIDIN	HQ	S B YADAV	NGT 5 50151	484
99	THE CATHOLIC UNIV OF AMERICA	L PURVES	GSFC	D NGUYEN	NAG 5 8357	165
99	THE CATHOLIC UNIV OF AMERICA	R CROUCH	GSFC	R D PARASURAMAN	NAG 5 8761	165
99	THE CATHOLIC UNIV OF AMERICA	Y KONDO	GSFC	F C BRUHWEILER	NAG 5 3037	163
99	THE UNIV OF CENTRAL FLORIDA	A NURRIDIN	HQ	C PARSONS	NGT 5 50128	177
99	THE UNIV OF CENTRAL FLORIDA	R K DISMULLES	ARC	D BAKER	NCC 2 1033	177
99	TRENHOLM STATE TECH COLLEGE	L RANDOLPH	GSFC	E ROSS	NAG 5 4578	4

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	TUFTS UNIV	A NURRIDIN	GSFC	C B ROGERS	NGT 5 50050	308
99	TUFTS UNIV	J M SEATON	LARC	C B ROGERS	NAG 1 2049	307
99	TUFTS UNIV	M J LEON	ARC	C B ROGERS	NCC 2 918	308
99	TUFTS UNIV	N LAL	GSFC	C ROGERS	NCC 5 434	308
99	TUFTS UNIV	W J WAGNER	HQ	K R LANG	NAGW 5136	308
99	TURTLE MOUNTAIN COMM COLLEGE	P SAKIMOTO	GSFC	S KARNAWAT	NAG 5 6088	407
99	TUSKEGEE UNIV	B ST. CYR	SSC	E SHEPPARD	NAG13 50	6
99	TUSKEGEE UNIV	B WHITE	HQ	N O EGIEBOR	NCC 5 346	6
99	TUSKEGEE UNIV	R MCKINNEY	KSC	C DAVIS	NAG10 256	6
99	UNIV HOUSTON-HOUSTON	F J MONTEGANI	GRC	V BALAKOTAIAH	NGT 3 52356	486
99	UNIV HOUSTON-HOUSTON	H L DAVIS	JSC	A V VAILLAS	NCC 9 70	485
99	UNIV HOUSTON-HOUSTON	LARMENDARIZ	JSC	T MINDIOLA	NAG 9 1055	485
99	UNIV OF MINN	A NURRIDIN	HQ	HALLEY	NGT 5 50091	331
99	UNIV OF MINN	A TUYAHOV	GSFC	T BURK	NCC 5 316	330
99	UNIV OF MINN	G ASRAR	GSFC	G POURFOULA	NGT 5 50104	331
99	UNIV OF MINN	G ASRAR	GSFC	M DAVIS	NGT 5 30115	331
99	UNIV OF MINN	G ASRAR	GSFC	M PERSON	NGT 5 30080	330
99	UNIV OF MINN	K OGILVIE	GSFC	P KELLOG	NAG 5 7202	328
99	UNIV OF MINN	L KEFFER	GSFC	W L GARRARD	NGT 5 40040	331
99	UNIV OF MINN	L SMITH	GSFC	C CATTELL	NGT 5 50251	331
99	UNIV OF MINN	L SMITH	GSFC	J DICKEY	NGT 5 50250	331
99	UNIV OF TEXAS MED BRAN - GALVESTON	L CHAMBERS	GSFC	D BARRETT	NGT 5 50071	486
99	UNIV OF TEXAS MED BRAN - GALVESTON	R BILICA	JSC	J R DAVIS	NCC 9 81	486
99	UNIV OF TEXAS-PAN AMERICAN	R LAWRENCE	GSFC	W C SHOCKLEY	NGT 5 90032	487
99	UNIV	B GUYNES	MSFC	B BUTLER	NCC 9 82	489
99	UNIV	L KEFFER	GSFC	J V TARANIK	NGT 5 40038	346
99	UNIV	L P CHAMBERS	GSFC	A HOLIAN	NGT 5 50084	489
99	UNIV OF AKRON	F J MONTEGANI	GRC	R K EBY	NGT 3 52327	424
99	UNIV OF ALABAMA - BIRMINGHAM	B CAMPBELL	GSFC	D J WDWIAK	NAG 5 4550	6
99	UNIV OF ALABAMA - HUNTSVILLE	B GUYNES	MSFC	K CHITTUR	NAG 8 1355	15
99	UNIV OF ALABAMA - HUNTSVILLE	D DETROYE	GSFC	J GREGORY	NCC 5 391	16
99	UNIV OF ALABAMA - HUNTSVILLE	E T SCHWARTZ	HQ	C A LUNDQUIST	NGT 40010	17
99	UNIV OF ALABAMA - HUNTSVILLE	G S WILSON	MSFC	L R GREENWOOD	NAG 8 1613	15
99	UNIV OF ALABAMA - HUNTSVILLE	J BILBRO	MSFC	D FORK	NGT 8 52812	18
99	UNIV OF ALABAMA - HUNTSVILLE	J E DASCH	HQ	J GEOGORY	NGT 5 40018	17
99	UNIV OF ALABAMA - HUNTSVILLE	J F DOWDY	MSFC	G KARR	NAG 8 1388	15
99	UNIV OF ALABAMA - HUNTSVILLE	J F DOWDY	MSFC	G R KARR	NGT 8 52874	18
99	UNIV OF ALABAMA - HUNTSVILLE	J R DOWDY	MSFC	G R KARR	NGT 8 52836	18
99	UNIV OF ALABAMA - HUNTSVILLE	J R DOWDY	MSFC	G R KARR	NGT 8 52837	18
99	UNIV OF ALABAMA - HUNTSVILLE	L KEFFER	GSFC	J C GREGORY	NCC 5 165	16
99	UNIV OF ALABAMA - HUNTSVILLE	L KEFFER	HQ	J GREGORY	NCCW 57	17
99	UNIV OF ALABAMA - HUNTSVILLE	M D WRIGHT	MSFC	A J DUNAR	NAS 8 97239	16
99	UNIV OF ALABAMA - HUNTSVILLE	M STOUTSENBERGER	GSFC	P G RICHARDS	NGT 5 70004	17
99	UNIV OF ALABAMA - HUNTSVILLE	M WATSON	MSFC	Y TAKAHASHI	NAS 8 98226	16
99	UNIV OF ALABAMA - UNIV	D V GALLAWAY	HQ	M FREEMAN	NAG 5 4346	19
99	UNIV OF ALABAMA - UNIV	F SIX	MSFC	L M FREEMAN	NGT 8 52819	20
99	UNIV OF ALASKA - ANCHORAGE	J ROOT	HQ	J FREDERICKS	NCCW 42	20
99	UNIV OF ALASKA - FAIRBANKS	L KEFFER	GSFC	J G HAWKINS	NGT 5 40014	23
99	UNIV OF ARIZONA	A NURRIDIN	GSFC	F MELIA	NGT 5 50014	41
99	UNIV OF ARIZONA	A NURRIDIN	GSFC	M LLOYD-HART	NGT 5 50046	41
99	UNIV OF ARIZONA	A NURRIDIN	HQ	J LUNINE	NGT 5 50111	41
99	UNIV OF ARIZONA	A NURRIDIN	HQ	M J DRAKE	NGT 5 50132	41
99	UNIV OF ARIZONA	B SEERY	GSFC	R ANGEL	NAG 5 3323	30
99	UNIV OF ARIZONA	C HILL	SSC	R DAVIS	NAG13 99005	39
99	UNIV OF ARIZONA	G ASRAR	GSFC	B M HERMAN	NGT 5 30051	41
99	UNIV OF ARIZONA	G ASRAR	GSFC	J W SHUTTLEWORTH	NGT 5 30082	41
99	UNIV OF ARIZONA	G ASRAR	GSFC	M YITAYEW	NGT 5 30095	41
99	UNIV OF ARIZONA	J BREDKAMP	GSFC	J A LARSEN	NAG 5 8095	37
99	UNIV OF ARIZONA	L KEFFER	GSFC	E H LEVY	NGT 5 40026	41
99	UNIV OF ARIZONA	L SMITH	GSFC	C WALKER	NGT 5 50246	42
99	UNIV OF ARIZONA	L SMITH	GSFC	U FINK	NGT 5 50243	42
99	UNIV OF ARIZONA	R AVANT	GSFC	K RAMOHALLI	NAG 5 3837	31
99	UNIV OF ARIZONA	R AVANT	GSFC	K RAMOHALLI	NGT 5 41	41
99	UNIV OF ARKANSAS - LITTLE ROCK	D DETROYE	GSFC	K HUDSON	NCC 5 404	42
99	UNIV OF ARKANSAS - LITTLE ROCK	E T SCHWARTZ	HQ	G M NORTHROP	NGT 40036	42
99	UNIV OF ARKANSAS - LITTLE ROCK	L KEFFER	GSFC	G M NORTHROP	NGT 5 40063	42

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	UNIV OF ARKANSAS - LITTLE ROCK	L KEFFER	HQ	G NORTHROP	NCCW 55	42
99	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	GSFC	E HALLER	NGT 5 50048	83
99	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	GSFC	G FISHER	NGT 5 50035	83
99	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	GSFC	L BILDSTEN	NGT 5 50052	83
99	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	D C BACKER	NGT 5 50133	83
99	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	P PRICE	NGT 5 50157	83
99	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	R J SAYKALLY	NGT 5 50126	83
99	UNIV OF CALIFORNIA - BERKELEY	C C JORGENSEN	ARC	F S WERBLIN	NAG 2 1255	71
99	UNIV OF CALIFORNIA - BERKELEY	F HASLER	GSFC	C CHRISTIAN	NAG 5 2875	72
99	UNIV OF CALIFORNIA - BERKELEY	F S HERRERO	GSFC	D SIEGMUND	NAG 5 7615	78
99	UNIV OF CALIFORNIA - BERKELEY	G ASRAR	GSFC	D MATSON	NGT 5 30075	82
99	UNIV OF CALIFORNIA - BERKELEY	G ASRAR	GSFC	J KIRCHNER	NGT 5 30097	82
99	UNIV OF CALIFORNIA - BERKELEY	G ASRAR	GSFC	M FIRESTONE	NGT 5 30071	82
99	UNIV OF CALIFORNIA - BERKELEY	G ASRAR	GSFC	W DIETRICH	NGT 5 30089	82
99	UNIV OF CALIFORNIA - BERKELEY	L CHAMBERS	GSFC	S HAMMOND	NGT 5 50072	83
99	UNIV OF CALIFORNIA - BERKELEY	L SMITH	GSFC	J GRAHAM	NGT 5 50245	84
99	UNIV OF CALIFORNIA - BERKELEY	M MEYER	GSFC	R SAYKALLY	NAG 5 7457	78
99	UNIV OF CALIFORNIA - DAVIS	A NURRIDIN	HQ	C A FULLER	NGT 5 50204	88
99	UNIV OF CALIFORNIA - DAVIS	B W MEESON	GSFC	C O QUALSET	NAG 5 8586	85
99	UNIV OF CALIFORNIA - DAVIS	B W MEESON	GSFC	W REISEN	NAG 5 7649	85
99	UNIV OF CALIFORNIA - DAVIS	G ASRAR	GSFC	J GIBELING	NGT 5 30073	88
99	UNIV OF CALIFORNIA - DAVIS	G ASRAR	GSFC	S L USTIN	NGT 5 30052	88
99	UNIV OF CALIFORNIA - DAVIS	L CHAMBERS	GSFC	C FULLER	NGT 5 50068	88
99	UNIV OF CALIFORNIA - DAVIS	L SMITH	GSFC	L H KELLOGG	NGT 5 50230	88
99	UNIV OF CALIFORNIA - DAVIS	R B WELCH	ARC	R B POST	NCC 2 905	86
99	UNIV OF CALIFORNIA - IRVINE	G ASRAR	GSFC	M PRATHER	NGT 5 30127	91
99	UNIV OF CALIFORNIA - IRVINE	S ROBBINS	MSFC	A MCPHEARSON	NCC 8 148	91
99	UNIV OF CALIFORNIA - LOS ANGELES	A NURRIDIN	HQ	V EDGERTON	NGT 5 50202	101
99	UNIV OF CALIFORNIA - LOS ANGELES	A NURRIDIN	HQ	W M HAMNER	NGT 5 50143	101
99	UNIV OF CALIFORNIA - LOS ANGELES	G MADDERA	LARC	R P TURCO	NAG 1 1899	91
99	UNIV OF CALIFORNIA - LOS ANGELES	H BRINTON	HQ	D A PAIGE	NAGW 5024	100
99	UNIV OF CALIFORNIA - LOS ANGELES	M MAIDEN	GSFC	R MUNTZ	NCC 5 301	101
99	UNIV OF CALIFORNIA - LOS ANGELES	S CURTIS	GSFC	M ABDALLA	NAG 5 6689	96
99	UNIV OF CALIFORNIA - LOS ANGELES	S MCGEE	HQ	P WANG	NGT 5 50220	101
99	UNIV OF CALIFORNIA - SAN DIEGO	A NURRIDIN	HQ	F BERMAN	NGT 5 50131	113
99	UNIV OF CALIFORNIA - SAN DIEGO	D J RASKY	ARC	J R ARNOLD	NCC 2 1034	112
99	UNIV OF CALIFORNIA - SAN DIEGO	E T SCHWARTZ	HQ	J ARNOLD	NGT 40005	112
99	UNIV OF CALIFORNIA - SAN DIEGO	F C OWENS	HQ	S K RIDE	NAGW 4557	110
99	UNIV OF CALIFORNIA - SAN DIEGO	J A YODER	GSFC	P NILLER	NAG 5 6375	107
99	UNIV OF CALIFORNIA - SAN DIEGO	L KEFFER	GSFC	J A ARNOLD	NGT 5 40007	113
99	UNIV OF CALIFORNIA - SAN DIEGO	L OSTENDORF	GSFC	J R ARNOLD	NGT 5 40057	113
99	UNIV OF CALIFORNIA - SAN DIEGO	L SMITH	GSFC	G FULLER	NGT 5 50234	113
99	UNIV OF CALIFORNIA - SAN DIEGO	P MOUNTJOY	HQ	D K RIDE	NCC 5 257	112
99	UNIV OF CALIFORNIA - SAN DIEGO	P MOUNTJOY	GSFC	P K RIDE	NCC 5 221	112
99	UNIV OF CALIFORNIA - SAN DIEGO	R CROUCH	GSFC	T JUNG	NAG 5 8768	110
99	UNIV OF CALIFORNIA - SAN DIEGO	R HATHAWAY	LARC	J M SCHOPL	NGT 1 52133	113
99	UNIV OF CALIFORNIA - SANTA BARBARA	A NURRIDIN	GSFC	D ROBERTS	NGT 5 50010	119
99	UNIV OF CALIFORNIA - SANTA BARBARA	A NURRIDIN	HQ	P LUBIN	NGT 5 50127	119
99	UNIV OF CALIFORNIA - SANTA BARBARA	G ASRAR	GSFC	R SMITH	NGT 5 30063	119
99	UNIV OF CALIFORNIA - SANTA BARBARA	G ASRAR	GSFC	S DENNING	NGT 5 30070	119
99	UNIV OF CALIFORNIA - SANTA BARBARA	G ASRAR	GSFC	S SCHMIDT	NGT 5 30104	119
99	UNIV OF CALIFORNIA - SANTA BARBARA	G ASRAR	GSFC	T DUNNE	NGT 5 30050	119
99	UNIV OF CALIFORNIA - SANTA BARBARA	L KALUZIENSKI	GSFC	D GROSS	NAG 5 7918	117
99	UNIV OF CALIFORNIA - SANTA BARBARA	M MAIDEN	GSFC	J FREW	NCC 5 302	118
99	UNIV OF CALIFORNIA - SANTA CRUZ	G ASRAR	GSFC	D SILVER	NGT 5 30074	122
99	UNIV OF CALIFORNIA - SANTA CRUZ	G ASRAR	GSFC	G VALLIS	NGT 5 90077	122
99	UNIV OF CALIFORNIA - SANTA CRUZ	Q HANSEN	ARC	D L STANSBURY	NCC 2 1037	121
99	UNIV OF CHICAGO	A NURRIDIN	HQ	D SCHRAM	NGT 5 50142	216
99	UNIV OF CHICAGO	A NURRIDIN	HQ	J FREIMAN	NGT 5 50140	216
99	UNIV OF CHICAGO	G ASRAR	GSFC	D MACAYEAL	NGT 5 30086	216
99	UNIV OF CHILE	W J BODIN	GSFC	E DIAZ	NAS 5 1925	558
99	UNIV OF CINCINNATI	A NURRIDIN	GSFC	P L RICHARDSON	NGT 5 50040	425
99	UNIV OF CINCINNATI	G ASRAR	GSFC	S ISLAM	NGT 5 30049	425
99	UNIV OF CINCINNATI	G ASRAR	GSFC	S ISLAM	NGT 5 30058	425
99	UNIV OF CINCINNATI	G ASRAR	GSFC	S ISLAM	NGT 5 30108	425
99	UNIV OF CINCINNATI	L SMITH	GSFC	J W PIKE	NGT 5 50265	425

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	UNIV OF CINCINNATI	S A MERRITT	GRC	E N PRATHER	NAG 3 1765	424
99	UNIV OF CINCINNATI	T J DAVIS	ARC	G L SLATER	NGT 2 52205	425
99	UNIV OF COLORADO - BOULDER	A NURRIDIN	GSFC	D ETTER	NGT 5 50056	148
99	UNIV OF COLORADO - BOULDER	A NURRIDIN	GSFC	D P SNOW	NGT 5 50032	148
99	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	E G ZWEIBEL	NGT 5 50141	149
99	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	P TODD	NGT 5 50090	148
99	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	R LEBEN	NGT 5 50124	149
99	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	R SU	NGT 5 50181	149
99	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	W CASH	NGT 5 50022	148
99	UNIV OF COLORADO - BOULDER	A POLAND	GSFC	A KIPLINGER	NAG 5 7062	140
99	UNIV OF COLORADO - BOULDER	D D DETROYE	GSFC	E R HANSEN	NGT 5 40028	148
99	UNIV OF COLORADO - BOULDER	D WICKLAND	GSFC	D A WESSMAN	NAG 5 6371	138
99	UNIV OF COLORADO - BOULDER	E T SCHWARTZ	HQ	E R HANSEN	NGT 40008	146
99	UNIV OF COLORADO - BOULDER	G ASRAR	GSFC	A R RAVIS	NGT 5 30076	148
99	UNIV OF COLORADO - BOULDER	G ASRAR	GSFC	J CURRY	NGT 5 30128	148
99	UNIV OF COLORADO - BOULDER	G ASRAR	GSFC	J OVERPECK	NGT 5 30059	147
99	UNIV OF COLORADO - BOULDER	G ASRAR	GSFC	M TOLBERT	NGT 5 30102	148
99	UNIV OF COLORADO - BOULDER	G ASRAR	GSFC	M TOLBERT	NGT 5 50070	148
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	A BROWN	NGT 5 50241	149
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	C A WESSMAN	NGT 5 30180	148
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	C WESSMAN	NGT 5 50271	149
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	J FORBES	NGT 5 50232	149
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	J LINSKY	NGT 5 50242	149
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	R CANUP	NGT 5 50237	149
99	UNIV OF COLORADO - BOULDER	M WEI	GSFC	J CURRY	NGT 5 30072	147
99	UNIV OF COLORADO - BOULDER	M WEI	GSFC	J RUNDLE	NGT 5 50102	148
99	UNIV OF COLORADO - BOULDER	M WEI	GSFC	M TOLBERT	NGT 5 50106	149
99	UNIV OF COLORADO - BOULDER	R AVANT	GSFC	R SU	NAG 5 4100	134
99	UNIV OF COLORADO AT COL SPRINGS	V ZANONI	SSC	C FOSHA	NAG13 57	150
99	UNIV OF CONNECTICUT	C HILL	SSC	D CIVCO	NAG13 99001	152
99	UNIV OF CONNECTICUT	K POIMBOEUT	KSC	B JAVIDI	NAG10 191	152
99	UNIV OF DELAWARE - BARTOL RES. INST	L SMITH	GSFC	A M LENHOFF	NGT 5 50167	158
99	UNIV OF DELAWARE	J DASCH	HQ	N F NESS	NGT 5 40024	156
99	UNIV OF DISTRICT OF COLUMBIA	B WHITE	GSFC	W R COLEMAN	NAG 5 3961	166
99	UNIV OF DISTRICT OF COLUMBIA	L RANDOLPH	GSFC	W R COLEMAN	NAG 5 4724	166
99	UNIV OF FLORIDA	A NURRIDIN	GSFC	R NARAYANAN	NGT 5 50026	182
99	UNIV OF FLORIDA	A NURRIDIN	HQ	B GUSTAFSON	NGT 5 50168	182
99	UNIV OF FLORIDA	A NURRIDIN	HQ	C M TELESCO	NGT 5 50018	181
99	UNIV OF FLORIDA	A NURRIDIN	HQ	R M ELSTON	NGT 5 50134	182
99	UNIV OF FLORIDA	A NURRIDIN	HQ	T ANDERSON	NGT 5 50074	182
99	UNIV OF FLORIDA	B CAMPBELL	GSFC	D GUSTAFSON	NAG 5 4547	179
99	UNIV OF FLORIDA	B W MESSON	GSFC	J F DAY	NAG 5 7664	180
99	UNIV OF FLORIDA	G A SOFFEN	GSFC	D MASON	NGT 5 94	181
99	UNIV OF FLORIDA	G BUCKINGHAM	KSC	H CAMPINS	NAG10 232	180
99	UNIV OF FLORIDA	J M HORACK	MSFC	D TREISE	NCC 8 149	181
99	UNIV OF FLORIDA	L CHAMBERS	GSFC	DURAN	NGT 5 50081	182
99	UNIV OF FLORIDA	L KEFFER	GSFC	H CAMPINS	NGT 5 40025	181
99	UNIV OF FLORIDA	L SMITH	GSFC	E A LADA	NGT 5 50233	182
99	UNIV OF HARTFORD	D DETROYE	GSFC	S TOWNSEND	NCC 5 390	152
99	UNIV OF HARTFORD	E T SCHWARTZ	HQ	L S NAGURNEY	NGT 40037	152
99	UNIV OF HARTFORD	J DASCH	HQ	L S NAGURNEY	NGT 5 40031	153
99	UNIV OF HAWAII AT MANOA - HONOLULU	A NURRIDIN	GSFC	J E BARMES	NGT 5 50017	206
99	UNIV OF HAWAII AT MANOA - HONOLULU	A NURRIDIN	HQ	D SANDERS	NGT 5 50089	206
99	UNIV OF HAWAII AT MANOA - HONOLULU	E T SCHWARTZ	HQ	P MOUGINIS-MARK	NGT 40020	206
99	UNIV OF HAWAII AT MANOA - HONOLULU	G ASRAR	GSFC	F JIN	NGT 5 30047	206
99	UNIV OF HAWAII AT MANOA - HONOLULU	G ASRAR	GSFC	M BEVIS	NAG 5 6430	201
99	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	G TAYLOR	NAG 5 3782	200
99	UNIV OF HAWAII AT MANOA - HONOLULU	J MCGARRY	GSFC	D HALL	NAS 5 32354	205
99	UNIV OF HAWAII AT MANOA - HONOLULU	L KEFFER	GSFC	P MOUGINIS-MARK	NGT 5 40021	206
99	UNIV OF HAWAII AT MANOA - HONOLULU	L SMITH	GSFC	C FLETCHER	NGT 5 30179	206
99	UNIV OF HAWAII AT MANOA - HONOLULU	L T CAROFF	ARC	K MEECH	NAG 2 1293	198
99	UNIV OF HAWAII AT MANOA - HONOLULU	M BALTUCK	GSFC	P J MOUGINIS-MARK	NAG 5 4395	200
99	UNIV OF HOUSTON - CLEAR LAKE	B A DEASON	JSC	J N MAIER	NGT 9 38	489
99	UNIV OF HOUSTON - DOWNTOWN	L ARMENDARIZ	JSC	R ALO	NAG 9 1018	489
99	UNIV OF IDAHO - MOSCOW	D DETROYE	GSFC	R GILL	NCC 5 395	208
99	UNIV OF IDAHO - MOSCOW	L KEFFER	GSFC	R GILL	NGT 5 40006	208

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	UNIV OF IDAHO - MOSCOW	L KEFFER	GSFC	R GILL	NGT 5 40056	208
99	UNIV OF IDAHO - MOSCOW	M J LEON	ARC	D H ATKINSON	NCC 2 914	208
99	UNIV OF IDAHO - MOSCOW	M MCCARTY	DFRC	I BOND	NAG 4 156	207
99	UNIV OF ILLINOIS - CHICAGO CIRCLE	A NURRIDIN	HQ	M CHOI	NGT 5 50155	217
99	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	A NURRIDIN	GSFC	A PEARLSTEIN	NGT 5 50034	223
99	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	A NURRIDIN	HQ	D W WATSON	NGT 5 50149	223
99	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	L KEFFER	GSFC	W C SOLOMON	NGT 5 40030	223
99	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	L SMITH	GSFC	A SCHEELINE	NGT 5 50238	223
99	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R CROUCH	GSFC	C LIU	NAG 5 8781	221
99	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	S MCGEE	HQ	R K IYER	NGT 5 50228	223
99	UNIV OF IOWA	A NURRIDIN	HQ	C V GISOLFI	NGT 5 50156	236
99	UNIV OF IOWA	A NURRIDIN	HQ	J GOREE	NGT 5 50139	236
99	UNIV OF IOWA	J FRAIZER	MSFC	C BECKERMANN	NCC 8 94	236
99	UNIV OF KANSAS	A NURRIDIN	HQ	J HARRINGTON	NGT 5 50161	239
99	UNIV OF KANSAS	A NURRIDIN	HQ	R G PLUMB	NGT 5 50073	239
99	UNIV OF KANSAS	C HILL	SSC	E A MARTINKO	NAG13 99009	238
99	UNIV OF KANSAS	D DETROYE	GSFC	D DOWNING	NCC 5 415	238
99	UNIV OF KANSAS	D DETROYE	GSFC	D R DOWNING	NGT 5 40065	239
99	UNIV OF KANSAS	E T SCHWARTZ	HQ	D R DOWNING	NGT 40026	239
99	UNIV OF KANSAS	J DASCH	GSFC	D R DOWNING	NCC 5 168	238
99	UNIV OF KANSAS	J DASCH	HQ	D R DOWNING	NGT 5 40033	239
99	UNIV OF KENTUCKY	C LEVIT	ARC	S B SINNOTT	NAG 2 1121	240
99	UNIV OF KENTUCKY	E SCHWARTZ	HQ	R HACKNEY	NGT 40049	241
99	UNIV OF MARYLAND - COLLEGE PARK	C E COCKRELL	LARC	M LEWIS	NGT 1 52158	277
99	UNIV OF MARYLAND - COLLEGE PARK	C HILL	SSC	S D PRINCE	NAG13 99011	274
99	UNIV OF MARYLAND - COLLEGE PARK	G A SOFFEN	GSFC	M GAVRILAS	NGT 5 62	277
99	UNIV OF MARYLAND - COLLEGE PARK	G ASRAR	GSFC	B KEDEM	NGT 5 30087	277
99	UNIV OF MARYLAND - COLLEGE PARK	K OBILVIE	GSFC	G GLOECKLER	NAG 5 7111	268
99	UNIV OF MARYLAND - COLLEGE PARK	M MAIDEN	GSFC	J TOWNSENDE	NCC 5 300	276
99	UNIV OF MARYLAND - COLLEGE PARK	M NOLAN	GSFC	D A	NAG 5 8207	271
99	UNIV OF MARYLAND - EASTERN SHORE	R WESTCOTT	GSFC	D NAGCHAUDRI	NGT 5 64	277
99	UNIV OF MARYLAND BALTIMORE COUNTY	D MENCHAN	GSFC	E B BAKER	NAG 5 8640	279
99	UNIV OF MARYLAND BALTIMORE COUNTY	D MENCHEN	GSFC	HIABROWSKI	NAG 5 2751	278
99	UNIV OF MARYLAND BALTIMORE	N MAYNARD	GSFC	D W FORESMAN	NAG 5 4254	278
99	UNIV OF MIAMI	M Y WEI	GSFC	O B BROWN	NGT 5 30222	184
99	UNIV OF MICHIGAN - ANN ARBOR	A NURRIDIN	HQ	F NORI	NGT 5 50114	324
99	UNIV OF MICHIGAN - ANN ARBOR	A NURRIDIN	HQ	G BALLESTER	NGT 5 50154	324
99	UNIV OF MICHIGAN - ANN ARBOR	J BERGSTRALH	HQ	W HARRIS	NAGW 4446	321
99	UNIV OF MICHIGAN - ANN ARBOR	L KEFFER	GSFC	R M JOHNSON	NGT 5 40062	324
99	UNIV OF MICHIGAN - ANN ARBOR	L SMITH	GSFC	L FISK	NGT 5 50255	324
99	UNIV OF MICHIGAN - ANN ARBOR	R AVANT	GSFC	D T ULABY	NAG 5 4243	318
99	UNIV OF MICHIGAN - ANN ARBOR	R AVANT	GSFC	F ULABY	NGT 5 39	324
99	UNIV OF MICHIGAN - ANN ARBOR	R HOFFMAN	GSFC	A NAGEY	NAG 5 7557	320
99	UNIV OF MISSISSIPPI - UNIV	D DETROYE	GSFC	P SUKANEK	NCC 5 405	335
99	UNIV OF MISSISSIPPI - UNIV	L KEFFER	GSFC	M R DINGERSON	NGT 5 40032	335
99	UNIV OF MISSOURI - COLUMBIA	A NURRIDIN	HQ	M LAUGHLIN	NGT 5 50205	336
99	UNIV OF MISSOURI - COLUMBIA	G ASRAR	GSFC	X ZHAUNG	NAG 5 6283	336
99	UNIV OF MISSOURI - ROLLA	C WEY	GRC	P D WHITEFIELD	NAG 3 2257	337
99	UNIV OF MISSOURI - ROLLA	L KEFFER	GSFC	B P SELBERG	NGT 5 40060	337
99	UNIV OF MISSOURI - ROLLA	L KEFFER	HQ	B P SELBERG	NGT 40057	337
99	UNIV OF NEBRASKA - LINCOLN	A NURRIDIN	HQ	SAMAL	NGT 5 50098	345
99	UNIV OF NEBRASKA - LINCOLN	D L KALE	GSFC	D RUNDQUIST	NAG 5 4217	344
99	UNIV OF NEBRASKA - LINCOLN	H CARR	SSC	RUNDQUIST	NCC13 98003	345
99	UNIV OF NEBRASKA - LINCOLN	N LAL	GSFC	D C RUNDQUIST	NCC 5 430	345
99	UNIV OF NEBRASKA-OMAHA	D DETROYE	HQ	B BROWN	NCC 5 401	345
99	UNIV OF NEBRASKA-OMAHA	J DASCH	HQ	B D BOWEN	NCC 5 169	345
99	UNIV OF NEBRASKA-OMAHA	L KEFFER	GSFC	B D BOWEN	NGT 5 40037	345
99	UNIV OF NEBRASKA-OMAHA	L KEFFER	HQ	B B BOWEN	NGT 40051	345
99	UNIV OF NEVADA SYSTEM ADMN	D DETROYE	GSFC	J TARANKI	NCC 5 397	346
99	UNIV OF NEW HAMPSHIRE - DURHAM	A NURRIDIN	GSFC	C KLETZING	NGT 5 50055	355
99	UNIV OF NEW HAMPSHIRE - DURHAM	G ASRAR	GSFC	D ABER	NGT 5 30083	355
99	UNIV OF NEW HAMPSHIRE - DURHAM	L KEFFER	GSFC	D S BARTLETT	NGT 5 40010	355
99	UNIV OF NEW HAMPSHIRE - DURHAM	M MEYER	GSFC	B MOORE	NAG 5 6793	351
99	UNIV OF NEW HAMPSHIRE - DURHAM	W J WAGNER	HQ	W VESTRAND	NAGW 5146	354
99	UNIV OF NEW MEXICO-ALBUQUERQUE	A TUYAHOV	GSFC	S MORAIN	NCC 5 309	368
99	UNIV OF NEW MEXICO-ALBUQUERQUE	B WHITE	HQ	M JAMSHIDI	NCC 5 350	369

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	UNIV OF NEW MEXICO-ALBUQUERQUE	D K RUSSELL	HQ	M LEE	NGT 90221	369
99	UNIV OF NEW MEXICO-ALBUQUERQUE	G S LEE	ARC	M JAMSHIDI	NAG 2 1196	367
99	UNIV OF NEW MEXICO-ALBUQUERQUE	L ARMENDARIZ	JSC	H E NEWSOM	NAG 9 1017	368
99	UNIV OF NEW MEXICO-ALBUQUERQUE	R CROUCH	GSFC	J BRINKER	NAG 5 8821	368
99	UNIV OF NEW MEXICO-ALBUQUERQUE	W H MILLER	GSFC	G MAKI	NAG 5 7006	367
99	UNIV OF NEW ORLEANS	F SIX	MSFC	J J HEGSETH	NAG 8 1116	246
99	UNIV OF NORTH ALABAMA	V ZANONI	SSC	L KEYS-MATHEWS	NAG13 58	20
99	UNIV OF NORTH CAROLINA - CHAPEL HILL	L SMITH	GSFC	T M WHITMORE	NGT 5 30177	407
99	UNIV OF NORTH CAROLINA - CHAPEL HILL	M PURVEY	MSFC	A WITT	NAG 8 1148	406
99	UNIV OF NORTH CAROLINA	J F DOWDY	MSFC	R D FORSYTHE	NAG 8 1314	407
99	UNIV OF NORTH DAKOTA	A TUYAHOV	GSFC	G SEIELSTAD	NCC 5 310	408
99	UNIV OF NORTH DAKOTA	C HILL	SSC	P R ZIMMERMAN	NAG13 99006	408
99	UNIV OF NORTH DAKOTA	D DETROYE	GSFC	C WOOD	NCC 5 399	408
99	UNIV OF NORTH DAKOTA	L KEFFER	GSFC	C A WOOD	NGT 5 40034	408
99	UNIV OF NORTH DAKOTA	N LAL	GSFC	C WOOD	NAG 5 8681	408
99	UNIV OF NORTH TEXAS HLTH SCI	A NURRIDIN	HQ	M SMITH	NGT 5 50179	490
99	UNIV OF OKLAHOMA - NORMAN	D DETROYE	GSFC	V DUC-SNOWDEN	NCC 5 398	431
99	UNIV OF OKLAHOMA - NORMAN	E T SCHWARTZ	HQ	K L HOVING	NGT 40052	431
99	UNIV OF OKLAHOMA - NORMAN	G ASRAR	GSFC	P J MCCANN	NGT 5 30103	431
99	UNIV OF OKLAHOMA - NORMAN	L KEFFER	GSFC	S DUCA	NCC 5 171	431
99	UNIV OF OKLAHOMA - NORMAN	L KEFFER	GSFC	V DUCA	NGT 5 40013	431
99	UNIV OF OREGON - EUGENE	G ASRAR	GSFC	E HUMPHREYS	NGT 5 50105	436
99	UNIV OF PENNSYLVANIA	A NURRIDIN	HQ	D A HAMMER	NGT 5 50267	452
99	UNIV OF PENNSYLVANIA	R CROUCH	GSFC	D N METAXAS	NAG 5 8767	452
99	UNIV OF PITTSBURGH	A NURRIDIN	HQ	B YATES	NGT 5 50029	454
99	UNIV OF PITTSBURGH	L SMITH	GSFC	B J YATES	NGT 5 50256	454
99	UNIV OF PITTSBURGH	L SMITH	GSFC	M DRUZDZEL	NGT 5 50252	454
99	UNIV OF PITTSBURGH	P VAUGHN	MSFC	C TALLEY	NAG 8 1360	454
99	UNIV OF PUERTO RICO - MAYAGUEZ		HQ	B RAMINEZ	NAGW 4614	557
99	UNIV OF PUERTO RICO - MAYAGUEZ	B WHITE	HQ	R VASQUEZ	NCC 5 340	557
99	UNIV OF PUERTO RICO - MAYAGUEZ	D DETROYE	GSFC	D G WEINER	NGT 5 40012	557
99	UNIV OF PUERTO RICO - MAYAGUEZ	D WILLIAMS	GSFC	R FERNANDEZ-SEIN	NCC 5 252	557
99	UNIV OF PUERTO RICO - MAYAGUEZ	J DIGGS	KSC	B RAMIREZ	NAG10 243	557
99	UNIV OF PUERTO RICO HUMACAO U COL	B L WHITE	HQ	A M GIERBOLINI	NAGW 4619	557
99	UNIV OF PUERTO RICO-RIO PIEDRAS	D DETROYE	GSFC	B R WEINER	NCC 5 407	558
99	UNIV OF PUERTO RICO-RIO PIEDRAS	J MALONE	GSFC	B WEINER	NAG 5 6428	557
99	UNIV OF PUERTO RICO-RIO PIEDRAS	L KEFFER	HQ	B WINNER	NCCW 58	558
99	UNIV OF RHODE ISLAND	N KHAZENIE	GSFC	L CARTER	NAG 5 3895	458
99	UNIV OF SOUTH ALABAMA	J F DOWDY	MSFC	P KULKARNI	NAG 8 1397	20
99	UNIV OF SOUTH CAROLINA-COLUMBIA	D DETROYE	GSFC	J D ODOM	NCC 5 174	463
99	UNIV OF SOUTH FLORIDA	G ASRAR	GSFC	K CARDER	NGT 5 30098	185
99	UNIV OF SOUTH FLORIDA	S LITTLE	MSFC	S N BUSANSKY	NCC 8 31	185
99	UNIV OF SOUTHERN CALIFORNIA	C C JORGENSEN	ARC	S SCHAAL	NAG 2 1256	123
99	UNIV OF SOUTHERN CALIFORNIA	C CAMPBELL	GSFC	D L JUDGE	NAG 5 4539	124
99	UNIV OF SOUTHERN CALIFORNIA	H LUM	ARC	C L NIKIAS	NAS 2 96009	125
99	UNIV OF SOUTHERN MISSISSIPPI	A JOYCE	SSC	J MILLER	NGT13 52716	335
99	UNIV OF SUSSEX	C C JORGENSEN	ARC	T COLLECT	NAG 2 1260	558
99	UNIV OF TENNESSEE - KNOXVILLE	R CROUCH	GSFC	G S SAYLER	NAG 5 8760	468
99	UNIV OF TEXAS - AUSTIN	D DETROYE	HQ	B D TAPLEY	NGT 5 40053	497
99	UNIV OF TEXAS - AUSTIN	D J PEARSON	JSC	R H BISHOP	NGT 9 20	497
99	UNIV OF TEXAS - AUSTIN	E PAYLOR	GSFC	B TAPLEY	NAG 5 6309	493
99	UNIV OF TEXAS - AUSTIN	H C MANDELL	JSC	B D TAPLEY	NAG 9 1060	495
99	UNIV OF TEXAS - AUSTIN	J MCGARRY	GSFC	P J SHELUS	NAS 5 32997	496
99	UNIV OF TEXAS - AUSTIN	K SMITH	GSFC	M CRAWFORD	NGT 5 50239	497
99	UNIV OF TEXAS - AUSTIN	R G FORMAN	JSC	D E MEAR	NAG 9 890	495
99	UNIV OF TEXAS - DALLAS	A NURRIDIN	GSFC	L TAAMIL	NGT 5 50058	498
99	UNIV OF TEXAS - DALLAS	B CAMPBELL	GSFC	D H HOFFMAN	NAG 5 4644	498
99	UNIV OF TEXAS - DALLAS	L KALUZIENSKI	GSFC	E J FENYVES	NAG 5 7916	498
99	UNIV OF TEXAS - EL PASO	B DELIWALA	KSC	R QUINTANA	NAG10 225	499
99	UNIV OF TEXAS - EL PASO	J BRADEN	DFRC	R WICKER	NAG 4 150	498
99	UNIV OF TEXAS - EL PASO	J MALONE	GSFC	S STARKS	NCC 5 209	499
99	UNIV OF TEXAS - EL PASO	M STOUTSENBERGER	GSFC	J HERRERA	NAG 5 4155	499
99	UNIV OF TEXAS - EL PASO	R D EASON	GSFC	M A KOLITSKY	NCC 5 207	499
99	UNIV OF TEXAS AT BROWNSVILLE	L ARMENDARIZ	JSC	M MANCILLAS	NAG 9 776	500
99	UNIV OF TEXAS AT BROWNSVILLE	L ARMENDARIZ	JSC	O RIVAS	NAG 9 1054	500
99	UNIV OF TEXAS AT BROWNSVILLE	L ARMENDARIZ	JSC	R RAMIREZ	NAG 9 801	500

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	UNIV OF TEXAS AT SAN ANTONIO	B J COLLINS	ARC	A T CHRONPOULOS	NAG 2 1383	500
99	UNIV OF TEXAS AT SAN ANTONIO	R LAWRENCE	GSFC	L WILLIAMS	NGT 5 90045	500
99	UNIV OF TOLEDO	R CROUCH	GSFC	B GONG	NAG 5 8785	428
99	UNIV OF TURABO	M MATEU	GSFC	M MODESTO	NAG 5 8323	558
99	UNIV OF UTAH	A NURRIDIN	GSFC	K SHARP	NGT 5 50088	503
99	UNIV OF UTAH	G ASRAR	GSFC	K LIOU	NGT 5 30078	503
99	UNIV OF UTAH	W C STAMPER	HQ	R PUGMIRE	NAGW 3687	502
99	UNIV OF VERMONT	A NURRIDIN	HQ	T KELLER	NGT 5 60002	506
99	UNIV OF VERMONT	D DETROYE	GSFC	W LAKIN	NCC 5 394	506
99	UNIV OF VERMONT	J DASCH	HQ	W D LAKIN	NGT 5 40045	506
99	UNIV OF VERMONT	J F DOWDY	MSFC	G MIRCHANDANI	NAG 8 1281	506
99	UNIV OF VERMONT	L CHAMBERS	GSFC	T S KELLER	NGT 5 60000	506
99	UNIV OF VIRGINIA	A NURRIDIN	GSFC	T W CROWE	NGT 5 50118	527
99	UNIV OF WASHINGTON	A NURRIDIN	GSFC	G LAKE	NGT 5 50078	542
99	UNIV OF WASHINGTON	E T SCHWARTZ	HQ	G K PARKS	NGT 40011	541
99	UNIV OF WASHINGTON	G ASRAR	GSFC	D HARTMANN	NGT 5 30085	541
99	UNIV OF WASHINGTON	G ASRAR	GSFC	D HEGG	NGT 5 30121	541
99	UNIV OF WASHINGTON	G ASRAR	GSFC	D LETTENMAIER	NGT 5 30090	541
99	UNIV OF WASHINGTON	G ASRAR	GSFC	J W MURRAY	NGT 5 30053	541
99	UNIV OF WASHINGTON	G ASRAR	GSFC	P V HOBBS	NGT 5 30094	541
99	UNIV OF WASHINGTON	G ASRAR	GSFC	R MCDUFF	NGT 5 30067	541
99	UNIV OF WASHINGTON	G L MADDREA	LARC	J R HOLTON	NAG 1 2193	533
99	UNIV OF WASHINGTON	K OGILVIE	GSFC	G PARKS	NAG 5 7114	537
99	UNIV OF WASHINGTON	L KEFFER	GSFC	G K PARKS	NGT 5 40017	542
99	UNIV OF WASHINGTON	M D MOORE	ARC	E LIVNE	NAG 2 723	533
99	UNIV OF WASHINGTON	M WEI	GSFC	C NEWHALL	NGT 5 98	541
99	UNIV OF WASHINGTON	M WEI	GSFC	D LETTENMAIER	NGT 5 30120	541
99	UNIV OF WASHINGTON	R A BINDSCHADLER	GSFC	D P WINEBRENNER	NAG 5 3078	534
99	UNIV OF WASHINGTON	R CROUCH	GSFC	V VOGEL	NAG 5 8784	539
99	UNIV OF WEST FLORIDA	B H WHITAKER	ARC	A J CANAS	NCC 2 1036	186
99	UNIV OF WEST FLORIDA	R CROUCH	GSFC	A RAJ	NAG 5 8782	186
99	UNIV OF WISCONSIN - MADISON	A N URRIDDEN	HQ	TIMBIE	NGT 5 50039	554
99	UNIV OF WISCONSIN - MADISON	A NURRIDIN	GSFC	R COOPER	NGT 5 50053	554
99	UNIV OF WISCONSIN - MADISON	A NURRIDIN	HQ	B D SAVAGE	NGT 5 50121	554
99	UNIV OF WISCONSIN - MADISON	A NURRIDIN	HQ	S GOWER	NGT 5 50160	554
99	UNIV OF WISCONSIN - MADISON	C HILL	SSC	G DIAK	NAG13 99008	552
99	UNIV OF WISCONSIN - MADISON	G ASRAR	GSFC	J FOLEY	NGT 5 30119	553
99	UNIV OF WISCONSIN - MADISON	L SMITH	GSFC	J FOLEY	NGT 5 30176	554
99	UNIV OF WISCONSIN - MILWAUKEE	L KEFFER	GSFC	G T MOORE	NGT 5 40039	554
99	UNIV OF WYOMING	DDETROYE	GSFC	P JOHNSON	NCC 5 414	556
99	UNIV OF WYOMING	G L MADDREA	LARC	T DESHLER	NAG 1 2164	555
99	UNIV OF WYOMING	L KEFFER	GSFC	P E JOHNSON	NGT 5 40008	556
99	UTAH STATE UNIV	A NURRIDIN	GSFC	C CALDWELL	NGT 5 50011	505
99	UTAH STATE UNIV	L KEFFER	GSFC	D BAKER	NGT 5 40047	505
99	VA POLYTECH INST & ST UNIV	J BARTHELEMY	LARC	B GROSSMAN	NGT 1 52155	531
99	VA POLYTECH INST & ST UNIV	L SMITH	GSFC	B M KLEINER	NGT 5 50260	531
99	VA POLYTECH INST & ST UNIV	L SMITH	GSFC	W HERBERT	NGT 5 50262	531
99	VA POLYTECH INST & ST UNIV	R A HATHAWAY	LARC	D M MOORE	NGT 1 52145	531
99	VALDOSTA STATE UNIV	W B BALL	LARC	L A MCGLINN	NAG 1 2039	198
99	VANDERBILT UNIV	L KEFFER	GSFC	A M STRAUSS	NGT 5 40054	470
99	VANDERBILT UNIV	R HOFFMAN	GSFC	E DAVID	NAG 5 7556	470
99	VOORHEES COLLEGE	W BALL	LARC	J QIN	NAG 1 1931	463
99	WASHINGTON STATE UNIV	A NURRIDIN	HQ	J N CHUNG	NGT 5 50138	543
99	WASHINGTON UNIV - ST	B CAMPBELL	GSFC	D A HASKIN	NAG 5 4642	338
99	WASHINGTON UNIV - ST	D E SMITH	GSFC	R J PHILLIPS	NAG 5 4435	338
99	WASHINGTON UNIV - ST	L SMITH	GSFC	M ISRAEL	NGT 5 50240	341
99	WELLESLEY COLLEGE	J BERGSTRAHL	HQ	G STARK	NAGW 5200	310
99	WEST VIRGINIA UNIV	D DETROYE	GSFC	M JARAIEDI	NCC 5 406	544
99	WEST VIRGINIA UNIV	E T SCHWARTZ	HQ	J T JUVEWICZ	NGT 40047	544
99	WEST VIRGINIA UNIV	G ASRAR	GSFC	S KITE	NGT 5 50103	544
99	WEST VIRGINIA UNIV	L EVANS	LARC	J G WELLS	NGT 51370	544
99	WEST VIRGINIA UNIV	L KEFFER	GSFC	M JARAIEDI	NGT 5 40055	544
99	WESTERN ILLINOIS UNIV	D SIX	MSFC	L H TICHENOR	NAG 8 1207	223
99	WESTERN KENTUCKY UNIV	D DETROYE	GSFC	R HACKNEY	NCC 5 222	241
99	WESTERN KENTUCKY UNIV	D DETROYE	GSFC	R HACKNEY	NCC 5 396	241
99	WESTERN KENTUCKY UNIV	L KEFFER	GSFC	R HACKNEY	NGT 5 40051	242

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
99	WESTERN KENTUCKY UNIV	L KEFFER	HQ	R HACKNEY	NCCW 60	242
99	WHEELING JESUIT UNIV	F DURSO	HQ	T ACKER	NAGW 2486	545
99	WHEELING JESUIT UNIV	J ROOT	HQ	L W RIVER	NCCW 65	545
99	WHEELING JESUIT UNIV	M PHELPS	GSFC	D MILLER	NCC 5 203	545
99	WORCESTER POLYTECH INST	M R BROWN	GSFC	F J LOOFT	NAG 5 8578	312
99	XAVIER UNIV - LOUISIANA	A JOYCE	JSC	S O	NAG13 98006	247
99	XAVIER UNIV - LOUISIANA	N SULLIVAN	SSC	R P HALE	NAG13 53	247
99	YALE UNIV	A NURRIDDIN	HQ	PROBER	NGT 5 50042	155
99	YALE UNIV	G ASRAR	GSFC	P K BARTEN	NGT 5 30046	155
99	YOUNGSTOWN STATE UNIV	F SIX	MSFC	J ALAM	NAG 8 1108	430